U.S. Department of the Interior
National Park Service

Fire Island National Seashore
Fire Island Lighthouse First Order Fresnel Lens
Return and Display
Environmental Assessment /Assessment of Effect
March 2007

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Fire Island Lighthouse First Order Fresnel Lens Return and Display Environmental Assessment / Assessment of Effect

Fire Island National Seashore
Town of Islip, Suffolk County, Long Island, New York

SUMMARY

Proposed Action: Fire Island National Seashore has prepared this Environmental Assessment/Assessment of Effect to analyze alternatives related to the return of the First Order Fresnel Lens to the Park. The purpose of taking this action is to address the need to provide an exhibit space to protect and display the First Order Fresnel Lens. Several feasible alternatives were considered. Alternative B, the NPS preferred alternative, proposes to build a new compatible structure on the existing foundation of the Power Generation Building and move the Boat House to its 1939 location. Alternative B is also the environmentally preferred alternative. Implementing the preferred alternative would have negligible to minor impacts on cultural landscapes, historic structures, archaeological resources, museum collections, vegetation, and visitor experience. This document will be used for compliance with both the National Environmental Policy Act of 1969, as amended and the National Historic Preservation Act of 1966, as amended.

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631-289-4810

Note to reviewers and responders: If you would like to comment on the Environmental Assessment/Assessment of Effect, you may mail comments by April 30, 2007 to the name and address below or you may post them electronically at http://parkplanning.nps.gov. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Superintendent
Fire Island National Seashore
120 Laurel Street
Patchogue, NY 11772

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PURPOSE AND NEED FOR ACTION

The National Park Service (NPS) is proposing to return the First Order Fresnel Lens (Lens) to Fire Island National Seashore (the Park) and provide an exhibit space to protect and display the Lens that was originally located in the Fire Island Lighthouse from 1858 to 1933. The Lens is a beehive-shaped series of glass prisms constructed to bend light into a narrow beam that can be seen by ocean-going vessels for miles. The Park considers the Fire Island Lighthouse Preservation Society (FILPS) as a partner in this project who shares the goal of protecting the cultural heritage and resources of the park. The proposed action is needed because no such facilities currently exist at Fire Island to house and display the lens.

The new facility would offer an enhanced visitor experience and provide a fuller understanding of the technological changes in visible signals from the 1850s to the present. The project would also provide additional opportunities to interpret the history and significance of the Fire Island Light Station (Light Station). The Fire Island Light Station includes the 1858 Light Tower, Connector, Keepers Quarters, Terrace and all the associated features and characteristics, of the Light House Reservation from bay to ocean. Housing and display of the First Order Fresnel Lens would help to fulfill the goals, themes and objectives for the Lighthouse tract that is described in the park's General Management Plan (GMP) and the Interpretive Prospectus (IP).

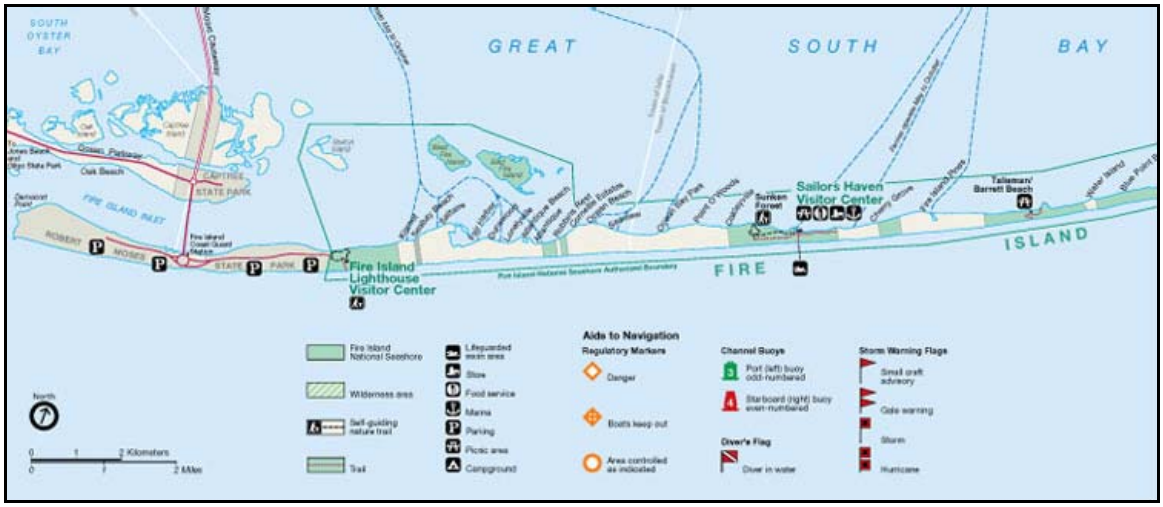
This Environmental Assessment/Assessment of Effect (EA/AoE) analyzes two action alternatives and the No Action Alternative, and their potential impacts on the environment. The EA/AoE has been prepared in accordance with the National Environmental Policy Act of 1969, as amended (NEPA), the implementing regulations of the Council on Environmental Quality (40 CFR 1500-1508.9) and NPS Director's Order #12: *Conservation Planning, Environmental Impact Analysis and Decision-Making* (DO-12) and accompanying Handbook (2001) . This EA/AoE is also intended to fulfill the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), and has been prepared in accordance with the implementing regulations of the Advisory Council for Historic Preservation (36 CFR Part 800) and NPS Director's Order #28: *Cultural Resources Management* (DO-28) and accompanying Handbook.

BACKGROUND

Park Purpose and Significance

Fire Island is a 32-mile long barrier island that parallels the south shore of Long Island, New York (Figures 1, 2, & 3). Fire Island is part of one of the world's longest chains of

Figure 1: Fire Island National Seashore Lands



barrier islands. Within the boundaries of Fire Island is the Fire Island National Seashore, a unit of the National Park System. In addition to the park-owned land, there are 17 private communities as well as local and county lands within the boundaries.

The Park, established in 1964, contains approximately 26 miles of the island. The Park was established "for the purpose of conserving and preserving for the use of future generations certain relatively unspoiled and undeveloped beaches, dunes, and other natural features…" (Public Law 88-587, 78 Stat. 928). The legislation also allows recreational activities to be provided for in environmentally compatible areas.

The natural resources within the park boundaries are recognized for their national significance. Since the Park's establishment, the NPS has also recognized a variety of cultural resources, including the Light Station.

This Lens was constructed circa 1857 under the direction of the Lighthouse Board and installed in the newly constructed Fire Island Light Station Tower in 1858. The construction and installation were part of a national movement to improve the illumination of beacons throughout the United States. The Lighthouse Board had responded to numerous requests from shipping companies for improved beacons along the major shipping lanes into New York City Harbor. First Order Fresnel Lenses were part of a larger plan for higher towers with improved lights.

In 1933, the Lens was removed from the Fire Island Lighthouse Tower in anticipation of the Station becoming electrified from a mainland power source. The Lens was disassembled, crated up, and moved to the Franklin Institute in Philadelphia, Pennsylvania. The Lens was incorporated into the Institute's permanent exhibit on Lighting and Optics. In 2000, the Franklin Institute removed the Lens from permanent exhibit and placed it into storage.

Figure 2: Fire Island Lighthouse Project Location Aerial Map

The Lens was initially cited in the park's 1986 Scope of Collections Statement that identified gaps in the park's collections. Informal discussions with the Franklin Institute and the United States Coast Guard (USCG), the owner of the Lens, were initiated in 1991. When the Lens was slated for removal from the Franklin's exhibit in 2000, the park and the FILPS initiated formal discussions for the transfer of loan of the object. As part of this proposal, the USCG agreed to loan the Lens to the NPS on a long-term, renewable loan.

In addition, the USCG's policy dictates that a lens will only be returned to a lighthouse if the lens is located at the site. The USCG's "official" preferences are that materials related to Light Stations be treated as historic artifacts and be displayed for the public to view.

The study area is located the western end of the park. The study area boundaries consist of the footprint around the foundation of the Power Generation Building, the footprint of the proposed location of the Boat House, the path used to relocate the Boat House to its proposed location and the construction staging area.

Figure 3: Detailed Project Location Map

Relationship of Proposal to Other Planning Projects

The NPS has completed a variety of planning documents to guide the management of the Park. The 1977 GMP is the most comprehensive, outlining an environmentally sound approach for natural resource management and recreational opportunities. The GMP also began to identify the Park's cultural resources and provide a premise for their management. The GMP has been followed with additional planning efforts pertinent to the Light Station, including the *Recommended Treatments, Fire Island Light Station* (1983), an Interpretive Prospectus (1994), *Fire Island National Seashore, Assessment of Alternatives, 1st Order Lens* (2004), and several additional cultural and natural resource studies. In 1981, the Park partnered with the newly established FILPS to manage the Light Station.

These planning documents describe a management philosophy that combines conservation and preservation of both natural and cultural resources. They build on the recognized significance of the Park's natural resources along with the historical significance of the Light Station. The Light Station is considered significant for the preservation and interpretation of maritime history as well as architecture and engineering. The Park's planning efforts to date have all identified preservation and interpretation of the Light Station as an important goal and one that needs to be expanded. Returning the Fresnel Lens to the Park is a major step in fulfilling the goal to more thoroughly interpret the Light Station.

The NPS completed an *Assessment of Alternatives, 1st Order Lens* to begin planning for the proposal and examine potential alternatives. This EA/AoE builds on the internal scoping and previous assessment.

SCOPING, PLANNING ISSUES, AND IMPACT TOPICS

During scoping, the park contacted federal and state agencies with jurisdiction and/or special expertise to inform them of the proposed action, to request information, and identify potential issues with the preferred alternative. The park has initiated consultation with the US Fish and Wildlife Service (USFWS), the New York Department of State (NY DOS), the New York State Historic Preservation Office (NY SHPO), the Advisory Council for Historic Preservation, and the U.S. Coast Guard (USCG) by letter. The Park would continue to consult with these agencies throughout the planning process and, as necessary, through implementation of the project.

Issues Selected for Detailed Analysis

Scoping is an early and open process to determine the breadth of environmental issues and alternatives to be addressed in a NEPA document. Scoping is used to identify which issues need to be analyzed in detail and which can be eliminated from in-depth analysis. It also allocates assignments among the participating members and/or other participating agencies; identifies related projects and associated documents; identifies permits, surveys, consultations, and other requirements, and creates a schedule that allows adequate time to prepare and distribute the EA/AoE for public review and comment

before a final decision is made. Scoping efforts include any staff, interested agency, or any agency with jurisdiction by law or expertise; for example including the State Historic Preservation Office, Tribal Historic Preservation Office, or U.S. Fish and Wildlife. Scoping may also include interested of affected organizations and individuals.

After the FLIPS became aware the Lens was available for relocation, the preservation group approached the Park's former Superintendent in 2000 about the FLIPS's plans of acquiring the Lens. In cooperation with the park, a group formed to explore options of returning the lens to the Park.

In March, 2004, a group was assembled that included Park staff members, FILPS staff members, a Historical Landscape Architect and a Lens Restorer and Conservator. The group identified several issues, concerns, problems and opportunities related to the environmental setting and the proposed project.

Review Panel Members

David Griese	Administrator, FILPS Retired U.S. National Park Service Ranger
Robert LaRosa	Vice President, FILPS Retired Long Island Railroad Manager
Paula Valentine	Chief, Interpretation, FINS
Steven A. Czarniecki	Curator, FINS Curator, Statue of Liberty / Ellis Island Cultural Resources Management Specialist FINS
Jim Dunlap	Lens Conservator Retired USCG Lieutenant Commander President, Lighthouse and Lens Restoration Corp.
Jack Ahern	Professor of Landscape Architecture Department Head University of Massachusetts - Amherst

This group developed a document that explored ways the lens could be displayed at the Fire Island Light Station. Information from the document was used in the process of developing alternatives in this EA/AoE.

As part of the scoping process an Environmental Screening Form (ESF) was completed that identified potential issues and impact topics that required additional investigation to address the requirements of NEPA and DO-12.

Issues identified during scoping include:

• The preservation and management of the Park's cultural and natural resources are of major concern. The NPS has identified cultural resources within the park, including archaeological sites, historic structures, cultural landscapes and museum collections.

• Views associated with the cultural landscape are integral to the Park's significance and its interpretation. The return of the Lens and construction of a new compatible structure may change the appearance of the cultural landscape associated with the Park.

• Changes to the natural features of the park, including undeveloped beaches, dunes, and coastal resources need to be considered. The impacts the addition of new structures and visitation may have on the natural environment need to be taken into consideration.

NEPA calls for an examination of the impacts on all components of affected ecosystems and is the charter for the protection of the environment. The preferred alternative was developed to minimize the adverse impact to natural and cultural resources and visitor experience.

To focus the environmental analysis, the issues identified during scoping were used to derive a number of impact topics to focus the environmental analysis presented in this EA/AoE. Impact topics are resources of concern that could be affected, either beneficially or adversely, by implementing any of the proposed alternatives. Impact topics were identified on the basis of federal laws, regulations, Executive Orders, NPS *Management Policies, 2006* (NPS, 2006), the ESF, and NPS knowledge of resources. In completing the ESF the Park reviewed the proposed alternatives, considered the data needed to describe the affected environment, and predicted impacts of the alternatives.

Issues and mitigation measures are included in the rationale for selection of impact topics selected for detailed analysis or dismissed from detailed analysis discussed below.

Impact Topics Retained for Analysis

The impact topics selected for analysis in this EA/AoE include:

Cultural Resources

- Cultural Landscapes
- Archeology
- Historic Structures
- Museum Collections

Natural Resources

- Vegetation
- Visitor Experience

Chapter 3 describes the affected environment for each impact topic analyzed and presents the potential impacts of implementing any of the alternatives.

Impact Topics Dismissed From Detailed Analysis

During project scoping and completion of the Environmental Screening Form several impact topics were identified that were initially considered but then dismissed from further analysis in the EA/AoE. Impact topics dismissed from detailed analysis are described below with the rationale for dismissal.

Soils:
NPS Management Policies 2006 require the protection of significant geologic and topographic features. The NPS strives to understand and preserve the soil resources of park units and to prevent, to the extent possible, the unnatural erosion, physical removal, or contamination of the soil, or its contamination of other resources.

Short-and long-term impacts to soils would be identical under both action alternatives. Impacts for the action alternatives involve ground disturbance for construction. Ground disturbance would take place in areas of previous disturbance or within footprints of existing structures and would cause little or no additional ground disturbance.

Short-term impacts to soils would include temporary disturbance of previously undisturbed soils from construction activities. Once construction was complete, disturbed sites within the construction area would be returned to natural conditions. Areas disturbed by construction would be revegetated to facilitate soil stability, help reduce runoff, channelization, and erosion, and to help the soil restore itself to natural conditions. Through the use of best management practices (BMP) and mitigation measures, short-term impacts to soils from disturbance would be adverse, site-specific, and negligible. By restricting construction to existing disturbed areas, the long-term impacts to soils would be adverse, site-specific, and negligible from the loss of soils due to construction.

Overall, the short-term and long-term impacts on soils as a result of either of the action alternatives would be adverse, site-specific, and negligible. Therefore, the topic of soils was dismissed from further analysis in this EA/AoE.

Low Income or Minority Populations and Environmental Justice:
Executive Order 12898 ("*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*") requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities.

According to the Council on Environmental Quality, environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies (Council on Environmental Quality, 1997). Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

There are no low income or minority populations in or near the study area or Park. The action alternatives would not have disproportionate health or environmental effects on minorities or low-income populations or communities. Therefore, the impact topic of low income or minority populations and environmental justice was dismissed.

Air Quality:
The 1963 Clean Air Act, as amended (42 United States Code (USC 7401 et seq.), requires that federal land managers have a responsibility to protect air quality-related values from adverse air pollution impacts. Section 118 of the Clean Air Act requires parks to meet all federal, state, and local air pollution standards. Section 176(c) of the Clean Air Act requires all federal activities and projects to conform to state air quality implementation plans to attain and maintain national air quality standards. *NPS Management Policies 2006* addresses the need to analyze potential impacts to air quality during park planning.

The proposed action would have minimal short-term impacts to air quality during construction. Hauling material, operating equipment and other construction activities could result in short-term increase of vehicle exhaust and emission. Overall, there could be a negligible impact to local air quality; however such impacts would be short-term, lasting only until the end of construction. When completed the proposed alternatives would have no impact to air quality. Therefore, the impact topic of air quality was dismissed.

Threatened and Endangered Species:
Section 7 of the Endangered Species Act (16 USC 1531 et seq.), as amended (ESA), requires an examination of impacts on all federally-listed threatened or endangered species. NPS policy also requires examination of the impacts on federal candidate species, as well as state listed threatened, endangered, candidate, rare, declining, and sensitive species (NPS, 2006).

Federally listed threatened species that occur in the Park are the piping plover (*Charadrius melodus*) and the seabeach amaranth (*Amaranthus pumilis*). A federally listed endangered and state threatened species that occurs in the Park includes the roseate tern (*Sterna dougallii dougallii*).

Based on correspondence with the USFWS, the proposed area does not provide habitat for federally-listed species. In addition, the current high beach visitation with the number of visitors reaching as much as 100,000 between the park areas and beach communities during the summer season, would also contribute to the low possibility of piping plover habitat occurring in the project area (FINS, 2004b).

State listed threatened species that use the Park include the common tern (*Sterna hirundo*) and least terns (*Sterna antillarum*), and a New York state species of concern is the seabeach knotweed (*Polygonum glaucum*).

Based on information from park staff, there are limited nesting sites for state-listed birds in the park and the study area does not contain suitable nesting habitat. The Park has habitat that can support seabeach knotweed, but habitat to support seabeach knotweed has not been identified in the proposed project area.

Therefore, state and federally-listed threatened and endangered species were dismissed from further analysis in this EA/AoE. As part of the Section 7 consultation process, this EA/AOE will be submitted to the U.S. Fish and Wildlife Service, for review and comment.

Wildlife and Wildlife Habitat:
NPS Management Policies 2006 require the protection of the components and processes of naturally occurring biotic communities, including the natural abundance, diversity, and ecological integrity of plants and animals.

Wildlife and wildlife habitat at the Park encompass an abundance of species. However, the proposed action is limited to an area consisting of a managed landscape that is heavily used by visitors during the summer months. Any disturbance within the area due to construction would be temporary, and would occur within the area already subject to high disturbance levels. No increase in development and no loss of permanent habitat. Visitation patterns would change little as any increased number of visitors would walk via existing boardwalks to the new compatible structure and proposed location of the Boat House. More visitors may come to the new Lens structure but it is in an area that already receives high visitation due to the existing Light Station. The existing beach access is used by many of the approximately 100,000 visitors hosted by the park and beach communities during the summer season and no additional disturbance is expected from any additional visitation (FINS, 2004b).

Because any potential adverse impacts to wildlife and wildlife habitat, both short-term and long-term, would be negligible, the impact topic of wildlife and wildlife habitat was dismissed from further analysis.

Floodplains:
Executive Order 11988 ("*Floodplain Management*") requires federal agencies to examine the impacts of their actions to floodplains and the potential risk involved in placing facilities within floodplains. NPS *Management Policies 2006*, DO-12, *and Decision-making*, and *Director's Order #77-2: Floodplain Management and accompanying Procedural Manual* (2003) (DO-77-2) provide guidelines on developments proposed in floodplains and wetlands.

Floodplain maps prepared by FEMA indicate that the site is located in Zone VE, meaning, it is an area that is typically inundated by 100-year flood events that are affected and exacerbated by wave action. There are no water bodies in the immediate vicinity of the foundation of the Power Generation Building, and the Atlantic Ocean is located approximately 1,500 feet to the south of the proposed location of the Boat House.

As outlined in the NPS DO- 77- 2 Section V.2, this project falls under an exemption, as the manual does not apply to historic or archaeological structures, sites, or artifacts whose location is integral to their significance. The location of both the proposed location of the Boat House and the historic foundation of the Power Generation Building is integral to their significance. Since the action is exempt, a floodplain Statement of Findings (SOF) is not required for this project. Therefore, floodplains were dismissed from detailed analysis in this EA/AoE and no SOF would be prepared.

Wetlands:
Executive Order 11990 ("*Protection of Wetlands*") requires federal agencies to examine the impacts of their actions to wetlands as well as their protection. NPS *Management Policies 2006*, DO-12, and Director's Order #77-1*: Wetland Protection and accompanying Wetland Procedural Manual*, (2002) (DO-77-1) provide NPS guidelines on developments proposed in wetlands. National Park Service policies require protection of water quality consistent with the Clean Water Act. Section 404 of the Clean Water Act authorizes the U.S. Army Corps of Engineers to prohibit or regulate, through a permitting process, discharge of dredged or fill material or excavation within U.S. waters.

Two wetlands are located in the vicinity of the proposed project. One wetland is located to the northeast of the Power Generation Building foundation and a second wetland is located equidistant and west of the path between the foundation of the Power Generation Building and the proposed location of the Boat House (Caldecutt, 1997). Both wetlands are classified as "brackish meadow". The only potential for impacts to these wetlands would be associated with moving the Boat House to its proposed new location. The proposed route for moving the Boat House is east into the staff parking area adjacent to the Keepers Quarters and then directly north to the proposed location, which completely avoids the wetlands. Therefore, wetlands were dismissed from detailed analysis in this EA/AoE and no 404 permit is needed.

Coastal Resources:
Coastal Zone Management Act of 1972, as amended (CZMA) requires the review of impacts to coastal zones. New York State has a Coastal Management Program approved by the National Oceanic and Atmospheric Administration. As such, any Federal agency directly undertaking a development project in the coastal zone must insure that the project is, to the greatest extent practicable, consistent with the enforceable policies of approved management programs.

The Park is in compliance with New York and Federal coastal zone management policies and is in consultation with the appropriate state and federal agencies. Based on previous consultation with the New York Department of State, New York Coastal Management Program, this project is not included in the "coastal area" or coastal zone" by the CZMA. Therefore, coastal resources were dismissed from further analysis. This EA/AoE will be sent to the State for review.

Traffic, Site Access, and Circulation:
Part of an enjoyable park experience is to navigate the park in a safe and efficient way. The main route through the Park is located to the south of the proposed site. The project is not expected to generate increased vehicular traffic to the park or project area and there would be no effects on surrounding communities. There may be minimal traffic impacts during construction. It is anticipated that the proposed action would not introduce new circulation patterns for automobiles or pedestrians. Access to the site would continue as it currently exists; therefore, the impact topic of traffic, site access, and circulation was dismissed from further analysis.

Prime and Unique Farmlands:
In August 1980, the Council on Environmental Quality directed that federal agencies assess the effects of their actions on farmland soils classified by the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) as prime or unique (Council on Environmental Quality,1980). Under the Farmland Protection Policy Act (FPPA) (7 USC 4201), prime farmland is defined as land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion (7 USC 4201(c)(1)(A)). Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, fruits, and vegetables (7 USC 4201(c)(1)(B)).

Based on the United States Department of Agriculture’s NRCS's on-line Soils Mapping data, the study area is classified as "Dune land" and has no characteristics or rating for Prime and Unique Farmlands.

The land in the study area is not currently used for agricultural purposes and the alternatives are not going to change the way the land is used; therefore the impact topic of prime and unique farmlands was dismissed.

Lightscape Management:
The *NPS Management Policies 2006* includes the preservation of ambient lightscape as one of its goals. NPS seeks to preserve, to the greatest extent possible, the natural lightscape in parks. Ambient lightscapes include natural resources and values that are present in the absence of human-caused light.

Any additional lighting for the new compatible structure would not interfere with the light from the lighthouse nor the view of the lighthouse from the land or water as the lighting would be minimal and compatible with existing lighting in the park. Since the alternatives would not alter existing lightscape conditions, the impact topic of lightscape management was dismissed from further analysis.

Visual Resources:
Visual resources, as an impact topic, was dismissed from further consideration in this EA/AoE because the affected environment and resources that constitute the visual

resources, or scenic viewshed, are embodied within the cultural landscape. Cultural Landscapes is analyzed as an impact topic in Chapter 3.

Indian Trust Resources:
Executive Order 13175 requires that any anticipated impacts to Indian trust resources from a proposed project or action by Department of Interior agencies be explicitly addressed in environmental documents. There are no Indian Trust Resources identified at the Park; therefore, Indian Trust Resources was dismissed as an impact topic in this document.

Sacred Sites:
Executive Order 13007 requires consultation with Indian tribes and religious representatives on the access, use, and protection of sacred sites. An Ethnographic Overview Assessment was completed in 2006 by the NPS. The Assessment did not identify any ethnographic resources in the Park. Therefore, the topic of sacred sites was dismissed from further analysis.

CHAPTER 2
ALTERNATIVES

INTRODUCTION

This chapter describes a range of alternatives that would provide an exhibit space to protect and display the Lens at the Park. This EA/AoE explores three alternatives: A No-Action Alternative, (Alternative A) and two action alternatives (Alternatives B and C). Following the description of the alternatives, Table 1 provides a comparison of alternatives with an explanation of the degree to which each alternative accomplishes the purpose and need of the project. A comparison of environmental consequences for each of the alternatives is provided in Table 2.

ALTERNATIVE A: NO ACTION

Alternative A, the No Action Alternative, is the continuation of current management direction. It does not imply or direct discontinuing the present action or removing existing uses, developments or facilities. The No Action Alternative provides a baseline of existing conditions and actions and provides a basis for evaluating the changes and impacts of the action alternatives (Figures 4 & 5). If the No Action Alternative were to be selected, the NPS would respond to future needs and conditions without substantial action or policy changes.

Under this alternative, the Lens would remain in storage under the care of the USCG. No space would be provided to exhibit, protect and display the Lens at the Park and the Lens would not be accessible to the public. The Boat House would not be moved. Development and interpretation of the Light Station tract at the Park would continue as stated in the GMP and IP. This includes returning the Light Station Tract to its appearance in 1939 as stated in the Recommended Treatments for the Light Station, minus returning the Lens to the Park. The visitor experience would remain as it currently is. At the current time, the Keepers Quarters has two floors of exhibits and displays depicting life as a Lighthouse Keeper and the purpose of the Fire Island Lighthouse. Currently daily tower tours to the top of the Lighthouse for school groups and visitors would continue. In addition, special events and programs would continue to be presented monthly on the natural and cultural history of the lighthouse area and facilities.

ALTERNATIVE B: CONSTRUCT NEW COMPATIBLE STRUCTURE (NPS PREFERRED ALTERNATIVE)

Under Alternative B, the NPS would construct a new structure to house the Lens. The new compatible structure would be built southwest of the Lighthouse on the pre-existing foundation of the Power Generation Building, which is where the Boat House now

Figure 4: Fire Island Lighthouse Aerial Photo

Figure 5: Alternative A – No Action Alternative

stands. The Boat House would be moved off this foundation as described below. The new building would be built in accordance with the Secretary of Interior's Standards for new construction and would be compatible with the architectural styles of the 1939 Light Station Tract, reminiscent of the mass and scale of historic buildings previously located on the site. The building would be approximately 25 feet by 50 feet and 22 feet in height, providing adequate space for the physical protection, display and access to the Lens (Figure 6).

The Boat House that currently sits within the footprint of the Power Generation Building would be moved to its original 1939 location, north of the Light Station and adjacent to the narrow gauge rail system used to provide coal to the Power Generation Building. The Boat House was moved from this original location in the mid-1950s. Restoring the Boat House to its original 1939 location on the bay would contribute to rehabilitating the cultural landscape at the Light Station to the desired treatment period of 1939, based on the approved Cultural Landscape Inventory (NPS, 2004).

The Boat House would be relocated to its 1939 location over land via cribbing. This process has been used to relocate houses in other Fire Island communities outside of the Park's boundaries. The Boat House would be lifted intact onto logs and rolled to its 1939 location. Relocation would occur during winter when ground disturbance would be minimal. Ground disturbance would occur through depressions made by the weight of the building. During relocation, the Boat House would follow the path of the abandoned rail line to stay on previously disturbed ground and avoid wetlands. The Boat House would be placed on piling as originally constructed. There is a single piling remaining from the circa 1954 move of the Boat House.

Staging areas for construction would be on the paved staff parking lot west of the Lighthouse Station. The foundation of the first lighthouse constructed on the island in 1825 is located to the west of the Power Generation Building's foundation would be shored or cribbed up during construction.

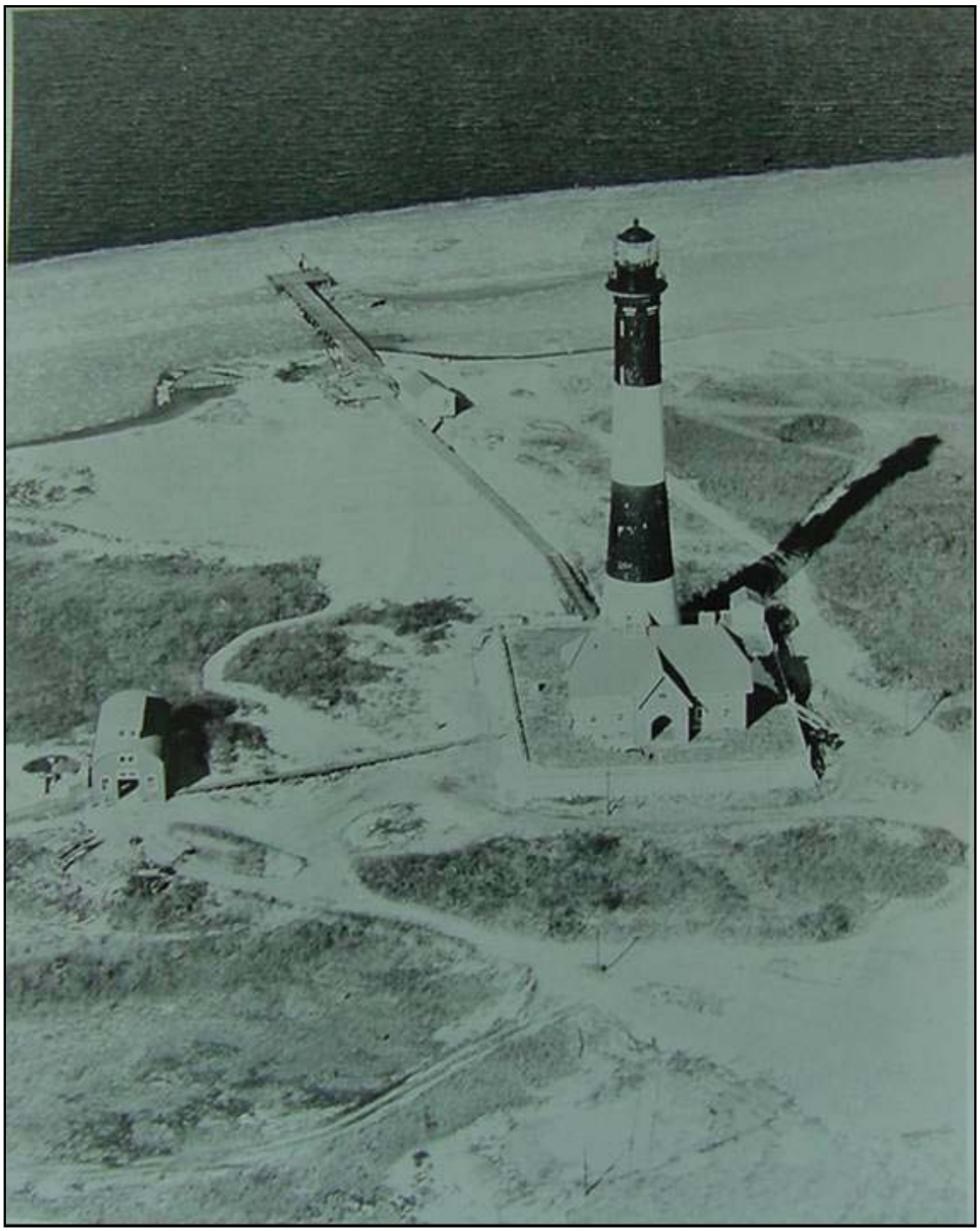
ALTERNATIVE C: RECONSTRUCT PERIOD HISTORIC STRUCTURE

Under Alternative C, a new structure to house and display the Lens would be built to portray a period historic structure from the treatment period (1939), following the Secretary of Interior Standards for reconstruction (Figure 7). A new, replication of the lost Power Generation Building would be constructed on the historic foundation of the original Power Generation Building (Figure 8). The Power Generation Building was constructed in 1894 to provide electrical power to the Lens and the Light Station and was in use in that location until circa 1945. The Power Generation Building was located on the 25 x 50 foot foundation west of the Light Station, where the Boat House currently stands. The new structure would be designed to replicate the lost building as closely as possible. As with Alternative B, the new period historic building in Alternative C would entail moving the Boat House off that foundation. As defined by the Secretary of Interior's Standards, a reconstruction is the act or process of depicting, by means of new

Figure 6: Alternative B – Construct New Compatible Structure (NPS Preferred Alternative

Figure 7: Alternative C - Reconstruct Period Historic Structure

Figure 8: Fire Island Lighthouse Historic Power Station Photo



construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

As previously described in Alternative B, under Alternative C, the Boat House would be moved north of the Light Station, where it stood in 1939, using the same moving process and construction staging area.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

The following alternatives were initially considered but were dismissed because they do not meet the purpose and need.

Install Lens in Mainland Facility

The Lens would be housed in the town of Patchogue, located on Long Island, NY, approximately 30 miles from the Light Station. A suitable facility would need to be identified, rehabilitated or constructed. This option was dismissed, as it would take away from visitor experience. Visitors to the Light Station would have to travel to another location outside the park to view the Lens. The relationship between the structures and the Lens would remain as it currently is and at best, be represented by photographs or models. The Lens is currently interpreted in the permanent exhibit panels in the Keepers Quarters with images and text. The smaller 4th Order Lens is on display (the 4th Order is about 4 feet high and 3 feet wide). Additionally, the FILPS has a number of temporary exhibits that address this project and do describe the Lens. Displaying the lens at a site not adjacent to the light house would not meet USCG standards.

Reinstall Lens in Tower

The Lens would be reinstalled in its original location in the Light Station Tower's Lantern Room. This alternative was dismissed because reinstalling the Lens in its original location would not be an accurate interpretation of the Light Station as outlined in the *Recommended Treatments, Fire Island Light Station*, 1983. The Park has implemented a restoration period for the exterior of the Light Station of 1939 and the Lens was originally located in the Light Station from 1858 to 1933.

In addition, the USCG also no longer permits the placement of historic lanterns in Lantern Rooms. The American Lighthouse Coordinating Committee and the USCG recommend that First Order Lens not be placed on display or in actual use in Lantern Rooms, due to the environment. The most damage to the Lens occurs from sunlight; both UV and regular light discolor the glass of the Lens. Additionally, wide fluctuations in temperature and humidity cause expansion and contraction of the bronze frame. These actions can crack the Lens. The caulking material used to hold the Lens in place is impacted by temperature and humidity that causes failure. The USCG Curator has developed specific guidelines addressing the exhibit of Lens. Additionally, most Lantern

Rooms have limited access for the public and most generally are somewhat unsafe for visitors.

This alternative would also not allow extensive visitor access to the Lens, as only those people capable and willing to climb to the tower would be able to view the Lens. The Lantern Room is located at the very top of the Tower and is reached by a steep set of narrow steps that are cut through the floor of the Lantern Room. There are no handrails above the steps and the transition from step to floor needs to be timed with the revolving light. Visitors would not be able to enter the Lantern Room where the Lens would be located, and would need to look up at the Lens through an opening in the floor. Safety of the visitors and staff is the largest issue to the reinstallation, along with the Lens being outside the treatment period of the Light Station. Therefore, this alterative was dismissed from further consideration.

Display Lens in Keepers Quarters/Visitor Center

The possibility of putting the lens on display in the Keepers Quarters/Visitor Center was reviewed. This alternative was dismissed because the Keepers Quarters/Visitor center is not structurally fit to support the weight of the lens. The building would need to be altered to accommodate the extreme weight of the Lens and the ceiling would need to be opened to the second floor to accommodate the height of the assembled Lens. This alternative was also dismissed because reinstalling the Lens in its original location would not be an accurate interpretation of the Light Station as outlined in the *Recommended Treatments, Fire Island Light Station*, 1983. Therefore, this alternative was dismissed from further consideration.

Rehabilitate Existing Building

Under this alternative, an existing structure located within the Light Station Tract would be rehabilitated to house and display the Lens. Of the nine structures located within the boundaries of the Light Station Tract, the Radio Annex building is the only building that has the space that is needed to house and display the Lens. Rehabilitating the interior of the building would require extensive structural modifications to fit and accommodate the Lens. All utilities would require upgrading and refitting. In addition, the park would need to relocate historic radio equipment, removing historic fabric from the building. They would also need to relocate district operation offices, driving checkpoint operations, seasonal and permanent housing.

Housing the Lens in the Radio Annex would also add confusion and mix the interpretation themes of the Light Station Tract as a whole. Historically and physically, the area around the Light Station has been associated with visible or short-range navigational signals, while the area east of the Light Station where the Radio Annex is located, has been associated with invisible or long-range navigational signals. The placement of the Lens in this facility could present confusion in the interpretation of the history of the site. Therefore, this alterative was dismissed from further consideration.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

In accordance with DO-12 and NEPA, the NPS is required to identify the environmentally preferred alternative in its NEPA documents. The Council on Environmental Quality defines the environmentally preferred alternative as the alternative that will promote the national environmental policy as expressed in the National Environmental Policy Act's Section 101. In their *Forty Most Asked Questions*, Council on Environmental Quality further clarifies the identification of the environmentally preferred alternative, stating "Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources" (Q6a).

Alternative B best protects the cultural resources of the Park by providing a facility to house and display the Lens in a setting that does not compromise the historic appearance or integrity of the Lighthouse Tract. Based on the analysis of environmental consequences of each alternative in Chapter 3, Alternative B is the Environmentally Preferred Alternative.

SUMMARY COMPARISON OF ALTERNATIVES

Table 1 provides a summary of the three alternatives presented above and analyzes the degree to which each alternative meets the purpose and need identified in Chapter 1.

Table 1: Summary Comparison of Alternatives

	Alternative A: No Action	**Alternative B: Construct New Compatible Structure (NPS Preferred Alternative)**	**Alternative C: Reconstruct Period Historic Structure**
Provide exhibit space to protect and display the Lens	Would not provide exhibit space for the Lens. Lens remains in USCG storage.	Would provide exhibit space through the construction of a new compatible structure.	Would provide exhibit space through the construction of a period historic structure.
Improve visitor experience and provide additional interpretive and educational opportunities	Would not enhance visitor experience or provide interpretive or educational opportunities. No additional exhibits or interpretive programs beyond	Would enhance visitor experience by providing the space to educate the public about the unique design, mechanics and magnitude of the Lens with Lens in its historic location and context and provide	Would enhance visitor experience as it does in Alternative B. The park would need additional interpretation to educate visitors on the origin of the reconstructed building, so as not to

Table 1: Summary Comparison of Alternatives			
	Alternative A: No Action	**Alternative B: Construct New Compatible Structure (NPS Preferred Alternative)**	**Alternative C: Reconstruct Period Historic Structure**
	existing. Lighthouse and Light Station Tract would continue to be interpreted without Lens in its historic context.	a fuller understanding of the technological changes in visible signals from the 1850's to the present.	create a false sense of history.
Fulfill objectives, goals and themes described in GMP and IP for Light Station Tract	Would not help park interpret park documents. Limited rehabilitation to restore the Light Station to its 1939 appearance.	Would allow park to take steps to rehabilitate park to 1939 appearance and improve interpretation of the Light Station. Allows return of the Lens and Boat House to their respective historic locations, furthering the goal of rehabilitating the landscape to 1939 conditions.	Would allow park to take steps to rehabilitate park to 1939 appearance and improve interpretation of the Light Station. Allows return of Lens and Boat House to historic locations plus replaces a missing element of the landscape, furthering the rehabilitation of the landscape to 1939 conditions.
Meet Purpose and Need	No. This alternative would not provide exhibit space to protect and display the Lens nor additional interpretation opportunities by interpreting the Lens in historic context. Visitor experience	Yes. This alternative meets the project's objectives by creating a space to house and protect the lens along with additional visitor experiences and interpretation opportunities. Returns Lens and	Yes. Although this alternative meets the project's objectives, it falls short of fully meeting the planning issues to the same extent as Alternative B because it creates a false historical appearance.

Table 1: Summary Comparison of Alternatives			
	Alternative A: No Action	**Alternative B: Construct New Compatible Structure (NPS Preferred Alternative)**	**Alternative C: Reconstruct Period Historic Structure**
	would not be enhanced.	Boat House to historic locations, a major step in carrying out the recommendations of the CLR.	

SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Table 2 provides a comparison of the environmental consequences of the proposed alternatives. See Chapter 3 for a detailed impact analysis.

Table 2: Summary of Environmental Consequences			
	Alternative A: No Action	**Alternative B: Construct New Compatible Structure (NPS Preferred Alternative)**	**Alternative C: Reconstruct Period Historic Structure**
Cultural Resources			
Cultural Landscapes	Alternative A would have no direct or cumulative impacts on cultural landscapes. For purposes of Section 106 consultation, a determination of no effect is anticipated.	Alternative B could have direct long-term, beneficial impacts to the cultural landscape. For purposes of Section 106 consultation, a determination of no adverse effect is anticipated.	Alternative C could have direct long-term, beneficial impacts to the cultural landscape. For purposes of Section 106 consultation, a determination of no adverse effect is anticipated.
Historic Structures	Alternative A would have no direct or cumulative impacts on historic structures. For purposes of Section 106 consultation, a	Alternative B could have direct long-term, beneficial impacts to the historic structures. For purposes of Section 106	Alternative C could have direct long-term, beneficial impacts to historic structures. For purposes of Section 106 consultation, a

Table 2: Summary of Environmental Consequences			
	Alternative A: No Action	**Alternative B: Construct New Compatible Structure (NPS Preferred Alternative)**	**Alternative C: Reconstruct Period Historic Structure**
	determination of no effect is anticipated.	consultation, a determination of no adverse effect is anticipated.	determination of no adverse effect is anticipated.
Archaeological Resources	Alternative A would have no direct or cumulative impacts on archaeological resources. For purposes of Section 106 consultation, a determination of no effect is anticipated.	Alternative B would have either no impact or direct, long-term negligible to moderate adverse impacts on archaeological resources. A determination of effect for purposes of Section 106 cannot be fully determined at this time. Section 106 consultation with the SHPO would be ongoing through final design.	Impacts to archaeological resources under Alternative C are the same as Alternative B.
Museum Collections	Alternative A would have no direct or cumulative impacts on museum collections.	Alternative B would have direct long-term, beneficial impacts to the museum collections.	Impacts to museum collections under Alternative C are the same as Alternative B.
Natural Resources			
Vegetation	Alternative A would have no direct and no cumulative impacts to vegetation.	Alternative B would be direct, adverse, site-specific, minor, short-term from construction-related activities. There would be direct, site specific, adverse, minor, and long-term impacts from the addition of the	Impacts to vegetation under Alternative C are the same as Alternative B.

Table 2: Summary of Environmental Consequences			
	Alternative A: No Action	**Alternative B: Construct New Compatible Structure (NPS Preferred Alternative)**	**Alternative C: Reconstruct Period Historic Structure**
		new compatible structure to the park.	
Visitor Experience	There would be no direct, short-term impacts on visitor experiences from construction-related activities. Impacts on visitor experience would continue to be direct, adverse, site-specific, minor, long-term due to the type of interpretation media and educational opportunities.	Actions associated with Alternative B would likely result in increased visitor experience and increased visitor satisfaction due to the introduction of the Lens, new compatible structure, and relocated Boat House.	Impacts on visitor experience would be enhanced by the great increase in interpretative opportunities. This may be offset by minor adverse impacts to visitor experience due to uncertainty about which structures are or are not historically authentic.

CHAPTER 3
AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This chapter describes the affected environment and potential environmental consequences associated with the no-action and action alternatives. The overall methodology for assessing impacts is presented below. Next, the chapter is organized by resource topic, and provides a standardized comparison between alternatives based on the most relevant impact topics described in Chapter 1. In accordance with the National Environmental Policy Act, impacts are described in terms of context, intensity, duration, and cumulative impacts. Because this document is intended to comply with Section 106 of the NHPA, the analysis of impacts to cultural resources also contains an assessment of effect. Mitigating measures for adverse impacts are also described. NPS policy also requires a determination of whether any impacts would result in the impairment of park resources or values.

METHODOLOGY

As required by NEPA, potential impacts are described in terms of type, context, duration, and level of intensity. These terms are defined below. Overall, these impact analyses and conclusions were based on the review of the existing literature and Park studies, information provided by on-site experts and other agencies, professional judgment and park staff knowledge and insight.

• ***Type of Impact***: Impacts can be beneficial or adverse. Beneficial impacts would improve resource conditions while adverse impacts would deplete or negatively alter resources.

• ***Context:*** Context is the setting within which an impact occurs and can be site specific, local, parkwide, or regionwide. Site-specific impacts would occur at the location of the action, local impacts would occur within the general vicinity of the project area, parkwide impacts would affect a greater portion of the Park and regionwide impacts would extend beyond Park boundaries.

• ***Intensity:*** Impact intensity is the degree to which a resource would be adversely affected. Because level of intensity definitions (negligible, minor, moderate, major) varies by resource, separate definitions are provided for each impact topic analyzed. The criteria that were used to rate the intensity of the impacts for each resource topic is presented below under “impact thresholds”. Beneficial impacts do not receive intensity definitions.

• ***Duration:*** Impacts can be either short term or long term. A short-term impact would be temporary in duration and would be associated with construction and the relocation of the Boat House. Depending on the resource, impacts would last as long as construction was taking place, for a single year or growing season, or longer. Long-term impacts last beyond the construction period, and the resources may not resume their pre-construction conditions for a longer period of time following construction. Impact duration for each resource is unique to that resource and is presented for each resource topic.

Direct and Indirect Impacts

DO-12 requires that direct and indirect impacts be considered, but not specifically identified. A direct impact is caused by an action and occurs at the same time and place. An indirect impact is caused by an action later in time, but still reasonably foreseeable and farther removed in distance.

Cumulative Impacts

The Council on Environmental Quality regulations, which implement NEPA, requires assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative impacts are considered for both the no-action and preferred alternatives.

Cumulative impacts were determined by combining the impacts of the alternatives with the impacts of other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects at the Park and, if applicable, the surrounding region.

No reasonably foreseeable future development is anticipated for the Fire Island Light Station. After discussions with park staff and a review of park-funded projects, there are no proposed NPS projects or projects by others with the potential to result in cumulative impacts on the resources analyzed in this EA/AoE.

The Light Station was “restored” in 1986 to its 1939 treatment period. At the present time, the park continues to perform routine cyclical maintenance in accordance with the treatment specifications. All the routine repairs and maintenance do not alter the current appearance of the Light Station complex.

Impairment of Park Resources and Values

NPS *Management Policies* 2006 requires analysis of potential effects to determine whether or not actions would impair park resources. The fundamental purpose of the national park system, established by the Organic Act (16 USC 1-4) and reaffirmed by the General Authorities Act of 1970, as amended, begins with a mandate to conserve park resources and values. NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adversely impacting park resources and values. However,

the laws do give the NPS the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values.

Although Congress has given the NPS the management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the NPS must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values. An impact to any park resource or value may constitute an impairment, but an impact would be more likely to constitute an impairment to the extent that it has a major or severe adverse effect upon a resource or value whose conservation is:

1. necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;

2. key to the natural or cultural integrity of the park; or

3. identified as a goal in the park's GMP or other relevant NPS planning documents.

Impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park. In this "Environmental Consequences" section, a determination on impairment is made in the Conclusion section of the impact analysis for each impact topic related to natural and cultural resources. Impairment determinations are not made for socioeconomic topics, or visitor use and experience (unless impacts are resource based) because impairment findings relate back to park resources and values, and these impact areas are not generally considered to be park resources or values and according to the Organic Act, cannot be impaired in the same way that an action can impair park resources and values.

Impacts to Cultural Resources and Section 106 of the National Historic Preservation Act

Impacts to cultural resources are described in terms of type, context, duration, and intensity, which is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act. However, the impact analysis is also intended to comply with the requirements of Section 106 of the NHPA, as amended (16 USC 470 et seq.). In accordance with the Advisory Council for Historic Preservation's regulations implementing Section 106 (36 CFR 800), impacts to cultural landscapes, historic structures and archaeological resources were identified and evaluated by (1) determining the area of potential effects; (2) identifying cultural resources present in the area of potential effects that were either listed on or eligible for listing on the National Register of Historic Places; (3) applying the criteria of adverse effect to affected cultural resources either listed on or eligible for listing on the national register; and (4) considering ways to avoid, minimize or mitigate adverse effects.

Under the regulations of the Advisory Council for Historic Preservation a determination of either *adverse effect* or *no adverse effect* must also be made for affected National Register eligible cultural resources. An *adverse effect* occurs whenever an impact alters, directly or indirectly, any characteristic of a cultural resource that qualifies it for inclusion on the National Register (e.g., diminishing the integrity of the resource's location, design, setting, materials, workmanship, feeling, or association). Adverse effects also include reasonably foreseeable effects caused by the action alternatives that would occur later in time, be farther removed in distance, or be cumulative (36 CFR 800.5, Assessment of Adverse Effects). A determination of *no adverse effect* means there is an effect, but the effect would not diminish in any way the characteristics of the cultural resource that qualify it for inclusion on the National Register. If there are no impacts to cultural resources, the determination is *no effect* on cultural resources.

Council on Environmental Quality regulations and NPS DO- 12 also call for a discussion of the appropriateness of mitigation, as well as an analysis of how effective the mitigation would be in reducing the intensity of a potential impact, e.g. reducing the intensity of an impact from major to moderate or minor. Any resultant reduction in intensity of impact due to mitigation, however, is an estimate of the effectiveness of mitigation only under the National Environmental Policy Act. It does not suggest that the level of effect as defined by Section 106 would be similarly reduced. Although adverse effects under Section 106 could be mitigated, the effect would remain adverse.

An assessment of effect for purposes of Section 106 of NHPA is included in the Section 106 Summary for cultural landscapes, historic structures and archeological resources, and an overall Section 106 summary for each alternative is included at the end of Chapter 3. The overall summary is an assessment of the effect of the undertaking on cultural resources, based on the criteria of effect and adverse effect found in the Advisory Council for Historic Preservation's regulations.

CULTURAL RESOURCES

The cultural resource management policies of the National Park Service are derived from several historic preservation and other laws, proclamations, Executive Orders, and regulations. Two primary mandates include the NHPA and NPS DO-28. Taken collectively, they provide the NPS with the authority and responsibility for managing cultural resources within units of the NPS so that those resources will be preserved unimpaired for future generations. Cultural resource management for this project will be carried out in a manner consistent with legislative and regulatory provisions, and with implementing policies and procedures.

National Historic Preservation Act of 1966, as amended, Section 106:
Section 106 of NHPA requires federal agencies to consider the impacts of their proposals on historic properties, and to provide state and tribal historic preservation officers and, as appropriate, Advisory Council for Historic Preservation and the public reasonable opportunity to review and comment on these actions.

The park maintains an active relationship with the NY SHPO regarding cultural resource issues and has notified the NY SHPO regarding the initiation of this EA/AoE and the intention of using this document for compliance with Section 106.

NPS Director's Order #28: Cultural Resource Management:
NPS DO-28 requires the NPS to protect and manage cultural resources in its custody through a comprehensive program of research, planning, and stewardship and in accordance with the policies and principles contained within the *NPS Management Policies, 2006.* The Order also requires the NPS to comply with the requirements described in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation and with the 1995 Servicewide Programmatic Agreement with the Advisory Council for Historic Preservation and the National Conference of State Historic Preservation Officers.

The park actively manages its cultural resources by conducting research to identify, evaluate, document and register basic information about its cultural resources, and sets priorities for stewardship to ensure resources are protected, preserved, maintained and made available for public understanding and enjoyment. The park consults and coordinates with outside entities where appropriate regarding cultural resource management.

CULTURAL LANDSCAPES

Affected Environment

A cultural landscape is a reflection of human adaptation and use of natural resources. It is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and types of structures that are built. The character of a cultural landscape is defined by physical materials such as roads, buildings, and vegetation and by use reflecting cultural values and traditions. Shaped through time by historical land use and management practices, cultural landscapes provide a visual record of an area's past. The dynamic nature of modern human life, however, contributes to the continual reshaping of cultural landscapes. They are a good source of information about specific times and places, but at the same time, their long-term preservation is a challenge.

The Light Station is considered to be an individual cultural landscape within the park. The NPS completed the Cultural Landscapes Inventory: Fire Island light Station in 2004 (CLI) which identified an expanded Light Station tract as a cultural landscape eligible for the National Register. The CLI also recommended the property be listed as a district and that the period of significance for the cultural landscape be expanded to include 1826-1960. The SHPO concurred with the CLI in 2005. The CLI for Fire Island Light Station identifies the Light Station as approximately 244 acres bounded on the north by Great South Bay, the east by the community of Kismet, the south by the Atlantic Ocean, and the west by Robert Moses State Park. This includes the Light House and its associated

structures and the Radio Compass Station. The CLI identified landscape characteristics that contribute to its significance including spatial organization, land use, vegetation, circulation, buildings and structures, views and vistas, and small-scale features. Character-defining features contributing to the Light Station's cultural landscape are summarized in Appendix B.

Methodology and Impact Thresholds

The definitions for identifying intensity of an impact are defined as follows:

Impact Intensity	Intensity Definition
Negligible	Impact is at the lowest levels of detection, barely perceptible and not measurable. For purposes of Section 106, the determination of effect would be *no adverse effect.*
Minor	Impact is measurable but would not be noticeable to visitors and would not affect the character-defining features of a National Register of Historic Places eligible or listed landscape. For purposes of Section 106, the determination of effect would be *no adverse effect.*
Moderate	Impact would affect a character-defining feature(s) of a cultural landscape but would not diminish the integrity of the landscape to the extent that its National Register of Historic Places eligibility is jeopardized. For purposes of Section 106, the determination of effect would be *no adverse effect.*
Major	Impact would alter a character-defining feature(s) of a cultural landscape, potentially diminishing the integrity of the landscape to the extent that it is no longer eligible for the National Register of Historic Places. For purposes of Section 106, the determination of effect would likely be *adverse effect,* and a Section 106 agreement document (MOA or PA) would be executed between the NPS, SHPO and other appropriate parties.

Beneficial impacts are described but are not assigned intensity levels.

Impacts of Alternative A: No Action

Impact Analysis: Under Alternative A there would be no changes to the Light Station landscape and the landscape would be preserved as it currently exists. The park would continue to preserve the landscape to keep it eligible for the National Register of Historic Places. The Lens would not be returned to the Light Station for display but would remain in storage in the USCG collection. There would be no impacts to the cultural landscape under this alternative.

Cumulative Impacts: There are no impacts to the cultural landscape under Alternative A; therefore, there would be no cumulative impacts to the cultural landscape.

Section 106 Summary: For the purposes of Section 106, the implementation of Alternative A would not alter the cultural landscape and would result in a determination of *no effect* on cultural landscapes.

Conclusion: Alternative A would have no direct or cumulative impacts on cultural landscapes and would result in a determination of *no effect* for purposes of Section 106.

Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing

legislation of the Park, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the park, or (3) identified as a goal in the Park's GMP or other relevant NPS planning documents, implementation of Alternative A is not likely to result in impairment of park resources or values related to cultural landscapes.

Impacts of Alternative B: Construct New Compatible Structure (NPS Preferred Alternative)

Impact Analysis: Under Alternative B, the Boat House would be removed from its current location, on the footprint of the Power Generation Building. The Boat House would be returned to its historic location northwest of the Light Station. A new compatible structure would be constructed to fit within the footprint of the Power Generation Building. The new compatible structure would be designed to fit the historic character of the cultural landscape. These changes implemented in the existing cultural landscape would constitute steps toward the landscape's rehabilitation and would be completed in accordance with *The Secretary of Interior's Standards* for rehabilitation.

Relocation of the Boat House to its original location would be accomplished under the *Secretary of the Interior's Standards for the Treatment of Historic Properties.* A Programmatic Agreement (PA) would be developed with the SHPO to outline consultation for moving the structure and outlining how the move would be accomplished and any mitigation measures that would be required. Implementation of Alternative B would result in long-term, beneficial impacts to the cultural landscape.

Cumulative Impacts: As noted in the Methodology section in Chapter 3, there are no other projects or activities with the potential to contribute to cumulative impacts on cultural landscapes. Therefore, there are no cumulative impacts.

Section 106 Summary: For the purposes of Section 106, the implementation of Alternative B would result in a determination of *no adverse effect* on cultural landscapes. A PA would be developed with the SHPO to outline consultation for moving the Boat House and outlining how the move would be accomplished and any mitigation measures that would be required.

Conclusion: Alternative B would result in direct, long-term, beneficial impacts to the cultural landscape and would result in a determination of *no adverse effect* for purposes of Section 106.

Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the Park, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the park, or (3) identified as a goal in the Park's GMP or other relevant NPS planning documents, implementation of Alternative B is not likely to result in impairment of park resources or values related to cultural landscapes.

Impacts of Alternative C: Reconstruct Period Historic Structure

Impact Analysis: Under Alternative C, the Boat House would be removed from its current location, on the footprint of the Power Generation Building. The Boat House would be returned to its historic location northwest of the Light Station. A new, replication of the lost Power Generation Building would be constructed on the historic foundation of the Power Generation Building. The new period historic structure would be designed to replicate the lost building as accurately as possible. The new building would appear in the landscape as if it were the original Power Generation Building. These changes implemented in the existing cultural landscape would constitute steps toward the landscape's rehabilitation by replacing a lost feature of the landscape and would be completed in accordance with *The Secretary of Interior's Standards* for rehabilitation. The park's interpretive program would be adjusted to ensure that the reconstructed building is not mistaken for an extant historic structure.

Relocation of the Boat House to its original location would be accomplished under the *Secretary of the Interior's Standards for the Treatment of Historic Properties.* A PA would be developed with the SHPO to outline consultation for moving the structure and outlining how the move would be accomplished and any mitigation measures that would be required. Implementation of Alternative C would result in long-term, beneficial impacts to the cultural landscape.

Cumulative Impacts: As noted in the Methodology section in Chapter 3, there are no other projects or activities with the potential to contribute to cumulative impacts on museum collections. Therefore, there are no cumulative impacts.

Section 106 Summary: For the purposes of Section 106, the implementation of Alternative C would result in a determination of *no adverse effect* on cultural landscapes. A PA would be developed with the SHPO to outline consultation for moving the Boat House and outlining how the move would be accomplished and any mitigation measures that would be required.

Conclusion: Alternative C would result in direct, long-term, beneficial impacts to the cultural landscape and would result in a determination of *no adverse effect* for purposes of Section 106.

Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the Park, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the park, or (3) identified as a goal in the Park's GMP or other relevant NPS planning documents, implementation of Alternative C is not likely to result in impairment of park resources or values related to cultural landscapes.

HISTORIC STRUCTURES

Affected Environment

The Light Station contains cultural resources that are listed or have been determined eligible for listing on the National Register of Historic Places. The Light Station was listed on the National Register in 1981 for its significance in the areas of commerce, engineering, and maritime history. The nomination specifically documents the lighthouse and Keepers Quarters and identifies the period of significance as 1858-1859, pertaining to its construction. Subsequent evaluation of the Light Station's historic structures determined the Boat House to be eligible for the National Register (NPS with SHPO concurrence, 1996).

Several historic structures exist within the two clusters that make up the Light Station. Core buildings for the Light Station include the historic Light House, Keepers Quarters, Terrace, and Boat House. Missing from the Light Station cluster are the coal/oil house, wharf, storehouse, and power generation plant. The Radio Compass Station is primarily comprised of the historic Annex Building. Several historic structures of the Radio Compass Station have been lost including the engine house, radio towers and residence.

Methodology and Impact Thresholds

The definitions for identifying intensity of an impact are defined as follows:

Impact Intensity	Intensity Definition
Negligible	Impact is at the lowest levels of detection, barely perceptible and not measurable. For purposes of Section 106, the determination of effect would be *no adverse effect.*
Minor	Impact is measurable but would not be noticeable to visitors and would not affect the character-defining features of a National Register of Historic Places eligible or listed structure. For purposes of Section 106, the determination of effect would be *no adverse effect.*
Moderate	Impact would affect a character-defining feature(s) of a structure but would not diminish the integrity of the structure to the extent that its National Register of Historic Places eligibility is jeopardized. For purposes of Section 106, the determination of effect would be *no adverse effect.*
Major	Impact would alter a character-defining feature(s) of a structure, potentially diminishing the integrity of the structure to the extent that it is no longer eligible for the National Register of Historic Places. For purposes of Section 106, the determination of effect would likely be *adverse effect,* and a Section 106 agreement document (MOA or PA) would be executed between the NPS, SHPO and other appropriate parties.

Beneficial impacts are described but are not assigned intensity levels.

Impacts of Alternative A: No Action

Impact Analysis: Under Alternative A there would be no changes to the Light Station's structures and they would continue to be preserved as they currently exist. The park would continue to preserve the Light Station's historic structures to keep them eligible for the National Register of Historic Places. The Lens would not be returned to the Light

Station for display but would remain in storage in the USCG collection. There would be no impacts to structures under this alternative.

Cumulative Impacts: There are no impacts to historic structures under Alternative A; therefore, there would be no cumulative impacts to historic structures.

Section 106 Summary: For the purposes of Section 106, the implementation of Alternative A would result in a determination of *no effect* on historic structures.

Conclusion: Alternative A would have no direct or cumulative impacts on historic structures and would result in a determination of *no effect* for purposes of Section 106.

Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the Park, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the park, or (3) identified as a goal in the Park's GMP or other relevant NPS planning documents, implementation of Alternative A is not likely to result in impairment of park resources or values related to historic structures.

Impacts of Alternative B: Construct New Compatible Structure (NPS Preferred Alternative)

Impact Analysis: Under Alternative B the changes implemented to historic structures would consist of relocating the Boat House to its original, historic location northwest of the Light Station, placing it back in its historic context where it would be preserved. The new compatible structure would be constructed to fit within the historic character of the surrounding landscape and would not detract from the character of the existing historic structures. The new compatible structure would be constructed on top of the Power Generation Building foundation or slightly larger so as not to disturb the foundation. There would be no effect to any other historic structures. Implementation of Alternative B would result in long-term, beneficial impacts to historic structures under this alternative.

Cumulative Impacts: As noted in the Methodology section in Chapter 3, there are no other projects or activities with the potential to contribute to cumulative impacts on historic structures. Therefore, there are no cumulative impacts.

Section 106 Summary: For the purposes of Section 106, the implementation of Alternative B is expected to result in a determination of *no adverse effect* on historic structures. A Programmatic Agreement (PA) would be developed with the SHPO to address treatment of the Power Generation Building foundation and the Boat House. The PA would ensure that the foundation is appropriately treated and that the Boat House is appropriately moved and preserved. The PA would outline the 106 consultation during the process and any mitigation measures that would be required to preserve the foundation and the Boat House in accordance with a determination of *no adverse effect.*

Conclusion: Alternative B would result in direct, long-term, beneficial impacts to historic structures. A determination of *no adverse effect* for purposes of Section 106 is anticipated. Further planning for Alternative B would require the development of a PA between the NPS, SHPO and other applicable parties.

Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the Park, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the park, or (3) identified as a goal in the Park's GMP or other relevant NPS planning documents, implementation of Alternative B is not likely to result in impairment of park resources or values related to historic structures.

Impacts of Alternative C: Reconstruct Period Historic Structure

Impact Analysis: Under Alternative C, the Boat House would be removed from its current location, on the footprint of the Power Generation Building. The Boat House would be returned to its historic location northwest of the Light Station. A new, replication of the lost Power Generation Building would be constructed on the historic foundation of the Power Generation Building. It would be designed to replicate the lost building as accurately as possible and would be completed in accordance with *The Secretary of Interior's Standards* for reconstruction. The park's interpretive program would be adjusted to ensure that the reconstructed building is not mistaken for an extant historic structure.

Relocation of the Boat House to its original location would be accomplished under the *Secretary of the Interior's Standards for the Treatment of Historic Properties.* A PA would be developed with the SHPO to outline consultation for developing the plan for moving the building and any mitigation measures that would be required. Implementation of Alternative C would result in long-term, beneficial impacts to historic structures.

Cumulative Impacts: As noted in the Methodology section in Chapter 3, there are no other projects or activities with the potential to contribute to cumulative impacts on historic structures. Therefore, there are no cumulative impacts.

Section 106 Summary: For the purposes of Section 106, the implementation of Alternative C would likely result in a determination of *no adverse effect* on historic structures. A PA would be developed with the SHPO to address treatment of the Power Generation Building foundation and the Boat House. The PA would ensure that the foundation is appropriately treated and that the Boat House is appropriately moved and preserved. The PA would outline consultation during the process and any mitigation measures that would be required to preserve the foundation and the Boat House in accordance with a determination of *no adverse effect.*

Conclusion: Alternative C would result in direct, long-term, beneficial impacts to historic structures. A determination of *no adverse effect* for purposes of Section 106 is

anticipated. Further planning for Alternative B would require the development of a PA between the NPS, SHPO and other applicable parties.

Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the Park, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the park, or (3) identified as a goal in the Park's GMP or other relevant NPS planning documents, implementation of Alternative C is not likely to result in impairment of park resources or values related to historic structures.

ARCHAEOLOGICAL RESOURCES

Affected Environment

Since the establishment of Fire Island National Seashore, three archaeological investigations have been conducted within the Light Station tract. Although no archaeological sites have been documented as eligible for the National Register, previous testing has determined that archaeological resources do exist at the Light Station (NPS, 1986) and that there are archaeologically sensitive areas such as that immediately surrounding the Light Station.

Efforts in 1974 and 1976 did not locate any prehistoric archaeological resources but did identify potentially significant resources associated with the Light Station. A more detailed investigation completed in 1986 identified two archaeologically sensitive areas: an area approximately 400 feet by 600 feet surrounding the light house and another approximately 300 feet square north of the radio annex. The investigation in these areas identified 19th and 20th-century resources likely associated with activity of the Light Station and radio annex including remnants of structures, middens and various artifacts. While resources have been documented to exist in the area of the Light Station, it is not yet known whether resources exist directly within the area that would be affected by this project.

Methodology and Impact Thresholds

The definitions for identifying intensity of an impact are defined as follows:

Impact Intensity	Intensity Definition
Negligible	Impact is negative and at the lowest levels of detection, barely measurable with no perceptible consequences, either adverse or beneficial, to archaeological resources. For purposes of Section 106, the determination of effect would be *no adverse effect.*
Minor	Disturbance of a site(s) is confined to a small area with little, if any, loss of important information potential and no damage to National Register of Historic Places eligible archaeological features. For purposes of Section 106, the determination of effect would be *no adverse effect.*
Moderate	Disturbance of a site(s) would not result in substantial loss of important information potential or significant damage to National Register of Historic Places eligible archaeological features. While there may be limited disturbance to archaeological features, the resource would remain eligible for listing on the National Register of Historic Places. For purposes of Section 106, the determination of effect would be *adverse effect,* and a Section 106 agreement document (PA/MOA) would be

	executed between the NPS, SHPO, and other appropriate parties.
Major	Disturbance of a site(s) is substantial and results in the loss of most or all of the site and its potential to yield information. The site would no longer be eligible for listing on the National Register of Historic Places. For purposes of Section 106, the determination of effect would be *adverse effect,* and a Section 106 agreement document (PA/MOA) would be executed between the NPS, SHPO, and other appropriate parties.

Beneficial impacts are described but are not assigned intensity levels.

Impacts of Alternative A: No Action

Impact Analysis: Under Alternative A, there would be no changes to the archaeological resources of the Light Station and the existing resources would be preserved as they currently exist. The Park would continue to preserve these resources in place and continue to pursue efforts to fully document the site's archaeological resources. There would be no impacts to archaeological resources under this alternative.

Cumulative Impacts: There are no impacts to archaeological resources under Alternative A; therefore, there would be no cumulative impacts to archaeological resources.

Section 106 Summary: For the purposes of Section 106, the implementation of Alternative A would result in a determination of *no effect* on archaeological resources.

Conclusion: Alternative A would have no direct or cumulative impacts on archaeological resources and would result in a determination of *no effect* for purposes of Section 106.

Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the Park, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the park, or (3) identified as a goal in the Park's GMP or other relevant NPS planning documents, implementation of Alternative A is not likely to result in impairment of park resources or values related to archaeological resources.

Impacts of Alternative B: Construct New Compatible Structure (NPS Preferred Alternative)

Impact Analysis: Under Alternative B, there may be impacts to archaeological resources. The site has potential to contain archaeological resources near the Power Generation Building foundation and the new location of the Boat House as well as within construction staging areas. The extent of ground disturbance can not be determined at this stage of the project planning. However, ground disturbance necessary for this project will likely be limited to pilings for the Boat House and possibly utilities and can be kept to a minimum.

Further archeological investigation may be needed within the project area to determine if resources are present in areas that might be disturbed. The Park would follow all NPS guidelines to survey and evaluate archaeological resources that may be affected within

the project area. If archeological investigation is determined to be necessary, and no resources are found, there would be no impact. If resources are located the project would be designed to avoid the resources and/or mitigate the impacts as necessary. The impact to archeological resources can not be fully determined until project design progresses and archeological investigation and evaluation are completed if determined necessary. However, with minimal ground disturbance and avoidance of resources and mitigation of effects as possible, the impacts would either be no impact or possibly direct, long-term and negligible to moderate adverse impacts.

Cumulative Impacts: As noted in the Methodology section in Chapter 3, there are no other projects or activities with the potential to contribute to cumulative impacts on archeological resources. Therefore, there are no cumulative impacts.

Section 106 Summary: For purposes of Section 106, the effects of implementing Alternative B cannot be fully determined at this time. The project would need further design and archaeological resources may need further identification for a determination of effect to be completed. Consultation with the SHPO would continue as the project is developed further and a PA with the SHPO and other appropriate parties would be developed to ensure proper identification and treatment of archaeological resources.

Conclusion: Alternative B would result in either no impact or direct, long-term and negligible to moderate adverse impacts to the archaeological resources. However, a determination of effect for purposes of Section 106 cannot be fully determined at this time. Further planning for Alternative B would require the development of a PA between the NPS, SHPO and other applicable parties.

Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the Park, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the park, or (3) identified as a goal in the Park's GMP or other relevant NPS planning documents, implementation of Alternative B is not likely to result in impairment of park resources or values related to archaeological resources.

Impacts of Alternative C: Reconstruct Period Historic Structure

Impact Analysis: The impacts are the same as Alternative B.

Cumulative Impacts: The cumulative impacts are the same as Alternative B.

Section 106 Summary: The Section 106 Summary is the same as Alternative B.

Conclusion: The conclusion is the same as Alternative B.

Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the Park, (2) key to the natural or cultural integrity of the Park or to

opportunities for enjoyment of the park, or (3) identified as a goal in the Park's GMP or other relevant NPS planning documents, implementation of Alternative C is not likely to result in impairment of park resources or values related to archaeological resources.

MUSEUM COLLECTIONS

Affected Environment

The NPS *Management Policies, 2006* and NPS DO-28 require the consideration of impacts on museum collections. Museum collections themselves are not subject to Section 106 review, therefore the impact analysis below is for purposes of NEPA and not Section 106 of NHPA.

The park's museum collection numbers 101,916 items. There are 32,501 Archeology objects; 29,202 History objects; 38,682 Archives and 1,531 Biology specimens. Currently, there are approximately 25 objects in the permanent and temporary exhibits at the Fire Island Light Station. The Boat House contains one (1) exhibited Museum Object, a circa 1900 Surf Boat.

The Lens, the primary focus of this analysis, is itself a museum object. The Lens operated in the light house tower from 1858 until 1933 and is a unique, intact example of a First Order Fresnel Lens. Currently the Lens is owned by the USCG and is in storage. The USCG is willing to loan the lens to the Park, where it will be stored until such time when a suitable exhibit space can be arranged.

Methodology and Impact Thresholds

The definitions for identifying intensity of an impact are defined as follows:

Impact Intensity	Intensity Definition
Negligible	Impact is at the lowest levels of detection, barely perceptible and not measurable.
Minor	Impact is perceptible but would affect only a few artifacts in the collection.
Moderate	Impact is perceptible and would affect many artifacts in the collection.
Major	Impact is measurable and would affect the majority of the artifacts in the collection.

Beneficial impacts are described but are not assigned intensity levels.

Impacts of Alternative A: No Action

Impact Analysis: Under Alternative A, there would be no changes to the museum collection of the Light Station. The new Lens exhibit would not be constructed and the lens would not be loaned to the Park for exhibit. The existing collection and exhibits would be maintained and preserved as they currently exist. There would be no impacts to museum collections under this alternative.

Cumulative Impacts: There are no impacts to museum collections under Alternative A; therefore, there would be no cumulative impacts to museum collections.

Conclusion: Alternative A would have no direct or cumulative impacts on museum collections.

Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the Park, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the park, or (3) identified as a goal in the Park's GMP or other relevant NPS planning documents, implementation of Alternative A is not likely to result in impairment of park resources or values related to museum collections.

Impacts of Alternative B: Construct New Compatible Structure (NPS Preferred Alternative)

Impact Analysis: Under Alternative B there would be one direct impact to museum collections. The original Fresnel Lens, removed from the light house in 1933, would be returned to the Light Station for display and become part of the Park's museum collection, on long-term loan from the USCG. The Lens would be housed in a climate controlled, secured environment within the new compatible structure and be available for visitor education and enjoyment. While this would add a major object to the collection its addition is an integral element to preservation and interpretation of the Light Station creating a positive impact for the NPS. The FILPS maintains the Light Station collections and interpretations so there will be no addition staff required by the NPS.

During project construction and while the Boat House is being moved, the exhibit within the Boat House will be stored elsewhere in the Park. It will be returned to the Boat House once the construction is complete. Therefore there would be no impacts to the museum collection related to the Boat House exhibit.

Archeological investigations that would occur related to the construction would have the potential to result in additional artifacts added to the park's collection. While this would require additional work to catalogue and house, it would result in furthering the knowledge of the site, therefore a beneficial impact. Implementation of Alternative B would result in long-term, beneficial impacts to museum collections.

Cumulative Impacts: As noted in the Methodology section in Chapter 3, there are no other projects or activities with the potential to contribute to cumulative impacts on museum collections. Therefore, there are no cumulative impacts.

Conclusion: Alternative B would result in direct, long-term, beneficial impacts to the museum collections.

Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the Park, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the park, or (3) identified as a goal in the Park's GMP or

other relevant NPS planning documents, implementation of Alternative B is not likely to result in impairment of park resources or values related to museum collections.

Impacts of Alternative C: Reconstruct Period Historic Structure

Impact Analysis: The impacts are the same as Alternative B.

Cumulative Impacts: The cumulative impacts are the same as Alternative B.

Conclusion: Alternative C would result in direct and cumulative long-term, beneficial impacts to the museum collections.

Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the Park, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the park, or (3) identified as a goal in the Park's GMP or other relevant NPS planning documents, implementation of Alternative C is not likely to result in impairment of park resources or values related to museum collections.

NATURAL RESOURCES

One natural resource topic was retained for analysis, which is vegetation. The two action alternatives, Alternative B and Alternative C, presented in this document have few differences and therefore, many of the impacts would be identical under either alternative.

VEGETATION

Affected Environment

NPS policy is to protect the natural abundance and diversity of all naturally occurring communities. The *NPS Management Policies 2006,* NPS DO #77: *Natural Resources Management* and other NPS policies provide general direction for the protection of vegetation.

Fire Island is a typical Atlantic barrier island. The island grades from a primary dune along the ocean to salt marsh along the bay. The dominant vegetation includes pitch pine (*Pinus rigida*), beach grass (*Ammophilia breviligulata*), wax myrtle (*Myrica cerifera*), bayberry (*M. pensylvanica*), shadbush (*Amelanchier canadensis*), and common greenbrier (*Smilax rotundifolia*) (FINS, 2006).

Activity around the Lighthouse Tract and study area has kept vegetation open. Visitors are directed to facilities via boardwalks. The boardwalks are a convention used by the Park to protect vegetation. Plant cover occurring at the project site ranges from sparse to dense. Predominant vegetation in the Lighthouse Tract is poison ivy and bayberry. Spare areas are covered with patches of beach grass and beach plum. Interdunal swales, where

marshlike conditions exist, cattails and moisture-tolerant plants were dominant (NPS, 1986).

Non-native plant species identified on Fire Island include bamboo, autumn olive, Japanese black pine, nodding thistle, bittersweet and Japanese honeysuckle. Exotic species are more likely to be located in communities where residents have planted non-indigenous vegetation. These areas are located outside the proposed project area. (NPS, 2003c).

Methodology and Impact Thresholds

Information compiled from available park documents and park staff was used to analyze the impacts. The definitions for identifying intensity level of an adverse impact are defined as follows:

Impact Intensity	Intensity Level Definition
Negligible	Vegetation would not be affected, or changes in vegetation would be below or at the level of detection. No native vegetation would be affected, although some individual plants could be affected as a result of the proposed action. There would be no impact on native species populations and no measurable changes on plant community, size, integrity or continuity.
Minor	Changes to vegetation would be detectable, although the changes would not be noticeable. The alternative would affect some individual native and non-native plants and a minor portion of that species' population. Impacts would be measurable or perceptible but would be localized within a small area. The viability of the plant community would not be affected and without additional impacts, would recover.
Moderate	Changes to vegetation would be readily apparent and likely long term. The alternative would affect some individual native and non-native plants and a large portion of that species' population covering a large geographic area. Impacts would have a detectable change in the plant community and the impact would have an appreciable impact on individual species.
Major	Changes to vegetation would be readily apparent, severely adverse, or exceptionally beneficial, and have important, long-term consequences. The action would have a considerable impact on native and non-native plant populations, and affect a large area both within and outside the Park's boundaries. Impacts would be substantial and permanent to the plant community.

Beneficial impacts are described but are not assigned intensity levels.

Impacts of Alternative A: No Action

Impact Analysis: Under this alternative the Fresnel Lens would not be retuned to the Park, would remain in storage, and the Boat House would remain in its current location. No changes would occur to vegetation within the study area. Current vegetation management practices would be maintained. The existing boardwalks that direct visitors to facilities would continue to be used. The landscape associated with the Lighthouse Tract would remain as it currently exists. Alternative A would not have an impact on vegetation

Cumulative Impacts: As noted in the Methodology section in Chapter 3, there are no other projects or activities with the potential to contribute to cumulative impacts on vegetation. Therefore, there are no cumulative impacts.

Conclusion: Under Alternative A there would be no direct and no cumulative impacts on vegetation.

Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the Park, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the park, or (3) identified as a goal in the Park's GMP or other relevant NPS planning documents, implementation of Alternative A is not likely to result in impairment of park resources or values related to vegetation.

Impacts of Alternative B: Construct New Compatible Structure (NPS Preferred Alternative)

Impact Analysis: Constructing a new compatible structure on the foundation of the Power Generation Building would temporarily impact vegetation during construction. Vegetation would also be removed around the future location of the Boat House to accommodate the foundation of the Boat House.

While the Boat House is being relocated, vegetation in the pathway of the cribbing would be depressed, some vegetation could be depressed up to approximately two inches. Moving the Boat House is expected to cause at most, minimal ground disturbance.

After construction, the Boat House would be open to the public. Existing boardwalks that currently keep visitors from walking on vegetation would continue to be used after construction.

The alternative is not expected to increase the potential for non-native invasive plants to be introduced to the park. Vegetation would undergo direct, adverse, site specific, minor, short-term and long-term, impacts during construction of the new compatible structure and when the Boat House is moved to its original location. Mitigation measures include construction fencing for work crews and equipment to follow. Minimal removal of vegetation would occur at the foundation site; limited to the area required for the pilings; approximately 12 -14 inches in diameter. The area is mainly beach grasses. A minimal amount of boardwalk (approximately 200 feet) would be required to provide accessibility from the existing boardwalk.

Cumulative Impacts: As noted on page 30, there are no other projects or activities with the potential to contribute to cumulative impacts on vegetation. Therefore, there are no cumulative impacts.

Conclusion: Under Alternative B vegetation would undergo direct, adverse, site-specific, short-term impacts from construction-related activities. Impacts to vegetation from constructing a new compatible structure would be direct, site specific, adverse, minor, and long-term. There would be no cumulative effects from past, present and reasonably foreseeable future actions.

Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the Park, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the park, or (3) identified as a goal in the Park's GMP or other relevant NPS planning documents, implementation of Alternative B is not likely to result in impairment of park resources or values related to vegetation.

Impacts of Alternative C: Reconstruct Period Historic Structure

Impact Analysis: The impacts are the same as Alternative B.

Cumulative Impacts: The cumulative impacts are the same as Alternative B.

Conclusion: Under Alternative C vegetation would undergo direct, adverse, site-specific, short-term impacts from construction-related activities. Impacts to vegetation from constructing a new compatible structure would be direct, site specific, adverse, minor, and long-term. There would be no cumulative effects from past, present and reasonably foreseeable future actions.

Because there would be no major, adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation of the Park, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the park, or (3) identified as a goal in the Park's GMP or other relevant NPS planning documents, implementation of Alternative C is not likely to result in impairment of park resources or values related to vegetation.

VISITOR EXPERIENCE

Affected Environment

NPS Management Policies 2006 state that the enjoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks and that the NPS is committed to providing appropriate, high-quality opportunities for people to enjoy the parks. Part of the purpose of the Park is to "conserve and preserve unspoiled and undeveloped beaches, dunes, and other natural features within Suffolk County, New York, which possess high values to the Nation as examples of unspoiled areas of great natural beauty." The GMP reaffirmed the importance and significance of visitor use and established provisions for better interpretation experiences for a more meaningful visitor experience.

The Park offers recreational, cultural and educational activities in addition to its natural beauty. Cultural and educational activities include guided nature walks, tours of the historic William Floyd Estate, arts and crafts demonstrations, special event programs such as talks, and self guided walks along nature trails. The Park's attraction lies in its natural barrier landscape and natural habitats that visitors travel to experience.

Methodology and Impact Thresholds

Park planning interpretive documents and park staff observations and experience provided information and guidance about visitor experience. The definitions for identifying intensity of an impact are as follows:

Impact Intensity	Intensity Level Definition
Negligible	Visitors would not be affected, or changes in visitor use and/or experience would be below or at the level of detection. Visitors would not likely be aware of the effects associated with the alternative.
Minor	Changes in visitor use and/or experiences would be detectable, although the changes would not be noticeable to visitors.
Moderate	Changes in visitor use and/or experience would be readily apparent and likely long term. Visitors would be aware of the effects associated with the alternative and would likely be able to express an opinion about the changes.
Major	Changes in visitor use and/or experience would be readily apparent, severely adverse, and have important, long-term consequences. Visitors would be aware of the effects associated with the alternative and would likely express a strong opinion about the changes.

Beneficial impacts are described but are not assigned intensity levels.

As stated in the Methodology section in Chapter 3, impairment determinations are not made for visitor use and experience because impairment findings relate back to park resources and values, and these impact areas are not generally considered to be park resources or values and according to the Organic Act, cannot be impaired in the same way that an action can impair park resources and values.

Impacts of Alternative A: No Action

Impact Analysis: Under Alternative A, no additional interpretive facilities would be created for the Lighthouse Tract. The Lens would remain in storage and no new compatible structures would be constructed. The Boat House would remain in its current location, and the current exhibit would be open to the public on a seasonal basis. The Park would continue to interpret the Lens through existing interpretive media of photographs and written descriptions of the Lens. This type of interpretation may make it more difficult for some visitors to understand and appreciate the history of the Lens.

Not providing a facility to house and display the Lens and ultimately not relocating the Lens to the Park would have adverse, site-specific, minor, long-term impacts to visitor experience of interpretation and educational opportunities.

Cumulative Impacts: As noted in the Methodology section in Chapter 3, there are no other projects or activities with the potential to contribute to cumulative impacts on visitor experience. Therefore, there are no cumulative impacts.

Conclusion: Under Alternative A there would be no direct, short-term impacts on visitor experiences from construction-related activities. Under Alternative A, impacts on visitor experience would continue to be direct, adverse, site-specific, minor, and long-term due

to interpretive media that may make it difficult to educate the public about the history of the Lens and keep the Boat House open on a seasonal basis. There would be no cumulative effects from past, present and reasonably foreseeable future actions.

Impacts of Alternative B: Construct New Compatible Structure (NPS Preferred Alternative)

Impact Analysis: Actions proposed under Alternative B provide a greatly enhanced visitor experience by adding missing elements to the cultural landscape through the return of the Boat House to its 1939 location. Alternative B would also provide a more in-depth understanding of the historic district and an educational opportunity for interpretation of the district's architectural history. The Lens would be displayed in a way that would allow visitors to fully appreciate its magnitude, technology and construction. The structure in close proximity to its original location would enhance the visitor experience, and Lighthouse staff and volunteers would be able to provide a more in-depth interpretation of the Lens, including the history of its development, design and construction. Additionally, the history of lighting devices related to maritime history would be included in the enhanced visitor interpretive experience.

Actions associated with Alternative B would likely result in enhanced visitor experience and increased visitor satisfaction. There would also be some benefit to visitor experience during construction by providing additional educational and interpretive opportunities.

Cumulative Impacts: The Park intends to rehabilitate the Light Station complex over the long-term by preserving the Light Station's historic character, concentrating on an interpretive date of 1939. Cumulative impacts resulting from the combination of the impacts of the other rehabilitation actions plus the proposed actions under Alternative B would improve visitor experiences. The addition of the new compatible structure and relocation of the Boat House would be make substantial strides toward an improved visitor experience.

Conclusion: Alternative B would likely increase visitor experience and visitor satisfaction from the proposed project and the associated construction related activities.

Impacts of Alternative C: Reconstruct Period Historic Structure

Impact Analysis: Under Alternative C, the reconstruction of a historic building would provide an enhanced visitor experience and similar benefits as described in Alternative B. A period historic structure would provide an enhanced visitor experience by adding missing elements to the cultural landscape; provide a more in-depth understanding of the historic district and provide an opportunity for the interpretation of the historic power station.

However, the reconstruction may send the public mixed messages regarding which buildings are historic and which are not. This may result in minor, adverse impact in the form of lower visitor satisfaction if visitors believe what they are seeing and walking through is the original 1894 historic structure, only to later discover the building is a

reconstruction. Additional interpretive media would also be needed to educate the public about the reconstruction.

There would be some benefit to visitor experience during construction by providing additional educational and interpretive opportunities.

Cumulative Impacts: Cumulative Impacts are the same as Alternative B.

Conclusion: Under Alternative C visitor experience would be enhanced by the great increase in interpretative opportunities by the addition of the Lens plus the replicate of the missing structure. This may be offset by minor adverse impacts to visitor experience due to uncertainty about which structures are or are not authentic.

SECTION 106 SUMMARY BY ALTERNATIVE

A preliminary draft of this EA/AoE (April, 2006) was reviewed by the SHPO in June, 2006 as part of early informal consultation. The SHPO responded to that early draft, stating they found the preferred alternative appropriate, but requested more detailed plans for review as they were developed. Since that review, the project alternatives presented in the EA/AoE have been altered and this EA/AoE has been substantially revised. This revised EA/AoE underwent internal NPS review by the Park's cultural resource advisors (Section 106 advisor team) in February, 2007. Subsequent to internal review, the EA/AoE was submitted to the SHPO for review on March 26, 2007. As the project undergoes further planning and design beyond this EA/AoE, additional submittals would be provided to the SHPO for review.

The environmental consequences, including and assessment of effect for Section 106 of the NHPA, were documented within individual impact topics in Chapter 3 of this EA/AoE. In the analysis, an Assessment of Effect for purposes of Section 106 was included for the listed or potentially eligible National Register cultural resources including: cultural landscapes, historic structures, and archeological resources. Effects were assessed for each topic by each of the three alternatives. Below is a summary discussing an overall assessment of effect for each alternative.

Alternative A: No Action

Alternative A, which maintains current management practices, would result in a *no effect* determination for cultural landscapes, historic structures and archeological resources individually. These resources would continue to be managed to retain their eligibility for listing on the National Register. Therefore the overall assessment of effect for Alternative A would be *no effect.*

Alternative B: Construct New Structure

Alternative B constructs a new structure at the Light Station under the umbrella of an overall site treatment of Rehabilitation. This alternative has a *no adverse effect* determination on cultural landscapes and historic structures. A determination of effect

for purposes of Section 106 cannot be fully determined at this time. Further planning and design must be undertaken in order to complete an assessment of effect. Therefore, and overall assessment of effect for the project as a whole for Alternative B cannot be completed at this time. A PA with the SHPO and other appropriate parties would be developed for Alternative B. The PA would outline continued consultation for the project and stipulate the necessary resource identification, treatment and mitigation for the protection of archeological resources. The PA would outline the consultation procedures and mitigation measures for treatment of the Power Generation Building foundation, relocation and preservation of the Boat House, and the protection and treatment of the archeological resources.

Alternative C: Reconstruct Period Historic Structure

Alternative C reconstructs the lost Power Generation Building at the Light Station under the umbrella of an overall site treatment of Rehabilitation. This alternative has a *no adverse effect* determination on cultural landscapes and historic structures. A determination of effect for archeological resources cannot be made at this stage of the project. Further planning and design must be undertaken in order to complete an assessment of effect. Therefore, and overall assessment of effect for the project as a whole for Alternative C cannot be completed at this time. A PA with the SHPO and other appropriate parties would be developed for Alternative C. The PA would outline continued consultation for the project and stipulate the necessary resource identification, treatment and mitigation for the protection of archeological resources. The PA would outline the consultation procedures and mitigation measures for treatment of the Power Generation Building foundation, relocation and preservation of the Boat House, and the protection and treatment of the archeological resources.

SUMMARY OF IMPACTS BY ALTERNATIVE

Alternative A: No Action

Alternative A would maintain current conditions at the park. The Lens would remain in storage and actions taken under this alternative would not provide exhibit space for the Lens or enhance visitor experience as no new exhibits or interpretive material would be created. It would also prevent the Park from restoring the Light Station Tract to its 1939 appearance.

There would be no impacts to the cultural resources or vegetation and the alternative is not likely to result in impairment of park resources or values. Direct, adverse, site-specific, minor, and long-term impacts would occur to visitor experiences due to the type of interpretation media and educational opportunities that exist.

Alternative B: Construct New Compatible Structure (NPS Preferred Alternative)

Actions associated with Alternative B would bring exhibit space to the park for displaying the Lens by constructing a new structure. This would improve visitor

experience through additional educational opportunities and would return the Lens to its historic location and context. The alternative would help rehabilitate the park to its 1939 appearance through the return of the lens and moving the Boat House to its historic location.

For Section 106 a determination of *no adverse effect* is anticipated for cultural landscapes and historic structures, and cannot be fully determined at this time for archaeological resources.

Alternative B would have beneficial results to historic structures, the cultural landscape, archaeological resources and museum collections. There would be short-term construction-related impacts. This alternative would likely increase visitor experience and visitor satisfaction from the proposed project and the associated construction related activities due to the introduction of the Lens, new compatible structure, and relocated Boat House. Implementation of Alternative B is not likely to result in impairment of park resources or values.

Alternative C: Reconstruct Period Historic Structure

Actions and impacts associated with Alternative C would be identical to Alternative B. In addition to the actions associated with Alternative B, Alternative C would also replace a missing element of the landscape, furthering the goal of restoring the Tract to its 1939 appearance. Reconstructing a period historic structure would create a false sense of history, so in addition to the interpretive material needed to interpret the Lens and Boat House; this alternative creates the need for additional interpretation to inform visitors of the origin of the building.

CHAPTER 4
CONSULTATION AND COORDINATION

AGENCY, TRIBAL, AND ORGANIZATION CONSULTATION

NP DO #12 requires the NPS to make a "diligent" effort to involve the interested and affected public in the NEPA process. This process, known as scoping, helps to determine important issues and eliminate those that are not; allocate assignments among the participants in the scoping process and/or other participating agencies; identify related projects and associated documents; identify other permits, surveys, consultations, etc. required by other agencies; and create a schedule that allows adequate time to prepare and distribute the environmental document for public review and comment before a final decision is made. This chapter documents the scoping process for this project and includes the official list recipients for the document.

Brief History of Planning and Scoping

As discussed in "Chapter 1: Purpose and Need for Action," the Park completed a series of planning efforts that lead to the possibility of returning the Fresnel Lens to the Park for display and interpretation. As early as 1986 the Park and the FILPS identified the desire to have the Lens as part of its museum collection. After a series of negotiations and discussions and with the assistance of the FILPS, the USCG agreed to loan the Lens to the Park for exhibit.

In 2004, the Park established a group to begin more formal planning for the possible display of the Lens at the Park. An environmental screening form was completed and the need to prepare an environmental assessment determined.

Several options were being considered and the Park contacted federal and state agencies with jurisdiction and/or special expertise to inform them of the proposed action, to request information, and identify potential issues with the preferred alternative. The Park has initiated consultation with many federal, state, and other agencies and will continue to consult these agencies, as needed, through the planning process and, as necessary, implementation of the project.

This EA/AoE will be on formal public and agency review for 30 days and has been distributed to a variety of interested individuals associated with the park's mailing list and outreach, agencies, and organization. This document is also available on the Internet at http://parkplanning.nps.gov and hard copies are available at the Fire Island NS Lighthouse and additional locations.

The following agencies, tribes, and organizations were contacted for information, assisted in identifying issues, developing alternatives, analyzing impacts, or identified compliance requirements:

Federal Agencies

Advisory Council on Historic Preservation
U.S. Department of Homeland Security, United States Coast Guard
U.S. Department of the Interior, Fish and Wildlife Service
U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service

American Indian Tribes

The NPS completed an Ethnographic Overview and Assessment in 2006 which did not identify any ethnographic resources within the project area.

State and Local Agencies

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau (State Historic Preservation Officer/SHPO)
New York State Department of State, Division of Coastal Resources
Dormitory Authority, State of New York

Organizations and Individuals

Fire Island Lighthouse Preservation Society

LIST OF PREPARERS

Preparers

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David Uschold, LIC Compliance Manager, National Park Service
David Griese, Administrator, Fire Island Lighthouse Preservation Society
Catherine Donahue, Environmental Protection Specialist, National Park Service
Daniel Bererra, Wildlife Biologist, National Park Service
Patricia Stanton, Assistant Administrator, Fire Island Lighthouse Preservation Society
Robert LaRosa, 1st Vice-President, Fire Island Lighthouse Preservation Society
Paul Pugliese, 2nd Vice-President, Fire Island Lighthouse Preservation Society
Laurie Matthews, Cultural Landscape Inventory Coordinator, National Park Service

Contributors and Reviewers

Steven A. Czarniecki, Curator, National Park Service
Sean McGinness, Deputy Superintendent, National Park Service
Michael Bilecki, Chief of Resource Management, National Park Service
Jacki Katzmire, Regional Environmental Coordinator-Philadelphia, National Park Service

REFERENCES

Caldecutt, William J. 1997. *Freshwater Wetlands Delineation and Inventory of Wetland Herpetological Species on Fire Island National Seashore.*

Council on Environmental Quality. 1980.

Council on Environmental Quality. 1997.

Fire Island National Seashore. 2004a. *Assessment of Alternatives, 1st Order Fresnel Lens.*

Fire Island National Seashore. 2004b. *Wildland Fire Management Plan*. Retrieved January 2007, from: http://www.nps.gov/fiis/DraftFireManagementPlan2004.pdf

Fire Island National Seashore Website. 2006. Retrieved November 2006, from http://www.nps.gov/fiis/naturescience/index.htm

National Environmental Policy Act (NEPA) of 1969 as amended (40 U.S.C. 4321)

National Historic Preservation Act (NHPA) (36 CFR Part 800, Protection of Historic Properties)

National Park Service. 1977. *Fire Island National Seashore, General Management Plan*.

National Park Service. 1981. *National Register of Historic Places Inventory-Nomination Form for Fire Island Light Station*.

National Park Service. 1983. *Recommended Treatments, Fire Island Light Station*.

National Park Service. 1986. *Archaeological Testing Rehabilitate Lighthouse Tract.*

National Park Service. 1992. *The Secretary of the Interior Standards for Rehabilitation*.

National Park Service. 1994. *Interpretive Prospectus*.

National Park Service. 1995. *The Secretary of the Interior Standards for the Treatment of Historic Properties*.

National Park Service. 1997. Director's Order #28: *Cultural Resource Management Guideline*

National Park Service. 2001. Director's Order #12: *Conservation Planning, Environmental Impact Analysis and Decision-Making* and accompanying handbook.

National Park Service. 2002. *Director's Order # 77-1: Wetland Protection*.

National Park Service. 2003a. *Director's Order # 77-2: Floodplains Management*.

National Park Service. 2003b. *Fire Island National Seashore, Environmental Assessment for Endangered Species Habitat Management*.

National Park Service. 2003c. *Invasive Plant Report for Fire Island National Seashore*.

National Park Service. 2004. *Fire Island Light Station Cultural Landscapes Inventory*.

National Park Service. 2006. *National Park Service Management Policies*.

_____. 2000. Executive Order 13175 - *Consultation and Coordination with Indian Tribal Governments*.

_____. 1996. Executive Order 13007 - *Indian Sacred Sites*.

ACRONYMS AND ABBREVIATIONS

BMP	Best Management Practices
CLI	Cultural Landscape Inventory
CZMA	Coastal Zone Management Act of 1972 as amended
DO-12	NPS Director's Order #12: *Conservation Planning, Environmental Impact Analysis and Decision-Making*
DO-28	NPS Director's Order #28: *Cultural Resources Management*
DO-77-1	NPS Director's Order #77- 1*: Wetland Protection and accompanying Wetland Procedural Manual*
EA/AoE	Environmental Assessment/Assessment of Effects
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESF	Environmental Screening Form
FILPS	Fire Island Lighthouse Preservation Society
FPPA	Farmland Protection Policy Act
GMP	General Management Plan
IP	Interpretive Prospectus
Lens	First Order Fresnel Lens
Light Station	Fire Island Light Station
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act of 1969, as amended
NHPA	National Historic Preservation Act
NPS	National Park Service
NRCS	United States Department of Agriculture's Natural Resources Conservation Service
NY DOS	New York Department of State
NYSHPO	New York State Historic Preservation Office
PA	Programmatic Agreement
SOF	Statement of Findings
The Park	Fire Island National Seashore (FINS)
USCG	United States Coast Guard
USFWS	US Fish and Wildlife Service

APPENDIX A: CONSULTATION DOCUMENTATION

November 29, 2006

Mr. George Stafford
Director
Division of Coastal Resources
NYS Department of State
41 State Street
Albany, NY 12231-0001

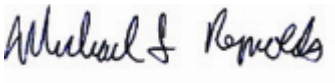
Dear Mr. Stafford,

This letter is to follow up on previous correspondence sent by the National Park Service (NPS) on May 23, 2006 that began informal consultation for a development project within the Fire Island Lighthouse Tract at the Fire Island National Seashore. Your office previously reviewed an Environmental Assessment/Assessment of Effects (EA/AoE) titled "Environmental Assessment, The Housing and Display of the First Order Fresnel Lens" dated April 2006, for consistency with the State's Coastal Zone Management Policies.

This letter is to advise you that the NPS is issuing a new EA/AoE, which will evaluate a different preferred alternative than the previous April 2006 EA/AoE. The new preferred alternative recommends the construction of a new structure that will emulate the architectural styles found at the Lighthouse Tract. The new structure will have the same footprint and height as the previous design. The changes to the preferred alternative in the new EA/AoE will not result in any new or additional impacts than those identified in the previous April 2006 EA/AoE.

We will send a draft of the new EA/AoE once it is issued for public review. If you have any questions or concerns, please contact Michael Bilecki of my staff at 631-687-4760.

Sincerely,



Michael T. Reynolds
Superintendent, Fire Island National Seashore

November 29, 2006

Mr. David Stillwell
Field Supervisor
U.S. Fish and Wildlife Service
3817 Luker Road
Cortland, New York 13045

Dear Mr. Stillwell,

This letter is to follow up on previous correspondence sent by the National Park Service (NPS) on May 23, 2006 that began informal consultation required under Section 7 of the Endangered Species Act for a development project within the Fire Island Lighthouse Tract at the Fire Island National Seashore. Your office previously reviewed an Environmental Assessment/Assessment of Effects (EA/AoE) titled "Environmental Assessment, The Housing and Display of the 1st Order Fresnel Lens" dated April 2006, for impacts to threatened and endangered species.

This letter is to advise you that the NPS is issuing a new EA/AoE, which will evaluate a different preferred alternative than the previous April 2006 EA/AoE. The new preferred alternative recommends the construction of a new structure that will emulate the architectural styles found at the Lighthouse Tract. The new structure will have the same footprint and height as the previous design. The changes to the preferred alternative in the new EA/AoE will not result in any new or additional impacts than those identified in the previous April 2006 EA/AoE.

We will send a draft of the new EA/AoE once it is issued for public review. If you have any questions or concerns, please contact Michael Bilecki of my staff at 631-687-4760.

Sincerely,

Michael T. Reynolds
Superintendent, Fire Island National Seashore

November 29, 2006

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
P.O. Box 189
Waterford, New York 12188-0189
Attention: Ms. Ruth Pierpont

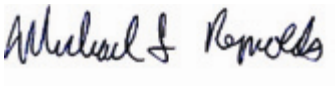
Dear Ms. Pierpont:

This letter is to follow up on previous correspondence sent on June 5, 2006 that began informal consultation for a development project within the Fire Island Lighthouse Tract at the Fire Island National Seashore. Your office previously reviewed an Environmental Assessment/Assessment of Effects (EA/AoE) titled "Environmental Assessment, The Housing and Display of the 1st Order Fresnel Lens" dated April 2006, for the National Park Service (NPS).

This letter is to advise you that the NPS is issuing a new EA/AoE, which will evaluate a different preferred alternative than the previous April 2006 EA/AoE. The new preferred alternative recommends the construction of a new structure that will emulate the architectural styles found at the Lighthouse Tract. The new structure will have the same footprint and height as the previous design. The changes to the preferred alternative in the new EA/AoE will not result in any new or additional impacts than those identified in the previous April 2006 EA/AoE. For this project the NPS intends to use the National Environmental Policy Act (NEPA) process to fulfill Section 106 as a requirement per 36 CFR 800.

We will send a draft of the new EA/AoE once it is issued for public review. If you have any questions or concerns or need additional information, please contact Michael Reynolds at 631-687-4752 or Michael_Reynolds@nps.gov or Steven A. Czarniecki at 631-395-3639 or Steve_Czarniecki@nps.gov.

Sincerely,



Michael T. Reynolds
Superintendent, Fire Island National Seashore

cc: Kelly Yasaitis, ACHP

November 29, 2006

Dr. Robert Browning
Historian's Office (G-IPA-4)
U.S. Coast Guard Headquarters
2100 Second Street, SW
Washington, DC 20593-0001

Dear Dr. Browning,

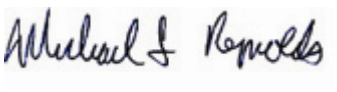
This letter is to follow up on previous correspondence sent by the National Park Service (NPS) on July 27, 2006 to inform the U.S. Coast Guard of an Environmental Assessment/Assessment of Effects (EA/AoE) titled "Environmental Assessment, The Housing and Display of the 1st Order Fresnel Lens" dated April 2006, for the housing and display of the Fresnel Lens at the Fire Island National Seashore.

This letter is to advise you that the NPS is issuing a new EA/AoE, which will evaluate a different preferred alternative than the previous April 2006 EA/AoE. The new preferred alternative recommends the construction of a new structure that will emulate the architectural styles found at the Lighthouse Tract. The new structure will have the same footprint and height as the previous design. The changes to the preferred alternative in the new EA/AoE will not result in any new or additional impacts than those identified in the previous April 2006 EA/AoE.

Thank you for your response regarding the first document. The NPS anticipates sending you the new draft EA/AoE in February, 2007. Before the new draft EA/AoE is finalized for public review, the NPS will require a written response from the U.S. Coast Guard for the new EA/AoE. The review should include all comments related to the preservation and protection of the Lens and include a reference to the Standard Facility Report developed by the American Association of Museum and used by the NPS.

The NPS is anticipating the new EA/AoE will be released for public review in March, 2007. We would appreciate your comments prior to this public release. Thank you for your support. If you have any questions or concerns, or need additional information, please contact Michael Reynolds at 631-687-4752.

Sincerely,



Michael T. Reynolds
Superintendent, Fire Island National Seashore

APPENDIX B: CULTURAL LANDSCAPES INVENTORY

Characteristic Feature	Contributing	IDLCS No.
LAND USE		
Maritime Navigation	Y	
VEGETATION		
Coastal Grasslands	Y	
Thicket Zones (Trees and Shrubs)	Y	
Upper Beach and Dune Vegetation	Y	
CIRCULATION		
Boardwalk - Lighthouse to shore	Y	
Boardwalk - USCG. Annex to pier	Y	
Burma Road	Y	
Pier	Y	
Remnant rail bed	Y	
Sand Paths	Y	
Contemporary Boardwalks	N	
Contemporary Sand Paths	N	
BUILDINGS AND STRUCTURES		
Annex Garage	Y	040915
Boat House	Y	040916
Engine House Foundation	Y	104921
F.I. Lighthouse	Y	022292
1st Lighthouse Foundation	Y	040922
Keepers Quarters	Y	022293
Oil House	Y	040917
Power House Foundation	Y	040924
Radio Tower Foundations	Y	040925
Store House	Y	090918
Terrace	Y	040926
Tool House	Y	040919
USCG Annex Building	Y	040920
Connector	N	040937
Sewer System	N	
Shed	Undetermined	
Shed	Undetermined	